**ADMINISTRATION OF JUSTICE**

Division: Arts and Social Sciences

AJ-101  **Administration of Justice**
54.00 hrs lecture
Units: 3.00
Advisory: ENGL-101A
Accepted For Credit: CSU & UC
This course covers the history and philosophy of administration of justice in America as well as recapitulation of the system identifying the various sub-systems and their relationships. Theories of crime, punishment, ethics, education, and training for professionalism in the system are explored. (GR) C-ID AJ 110

AJ-102  **Criminal Law**
54.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-151B and ENGL-163
Accepted For Credit: CSU & UC
This course covers concepts of criminal law: historical development, philosophy of law, and constitutional provisions. Also covered will be classifications of crime and their application to the system of administration of justice. In addition, the course covers legal research, study of case law, methodology, and concepts of law as a social force. (GR) C-ID AJ 120

AJ-104  **Criminal Evidence**
54.00 hrs lecture
Units: 3.00
Advisory: ENGL-101A
Accepted For Credit: CSU
This course covers the legal aspects of evidence. The origin, development, philosophy, and constitutional basis of evidence, along with constitutional and procedural considerations affecting arrest, search and seizure, kinds and degrees of evidence, and rules governing admissibility are studied. Judicial decisions interpreting individual rights and case studies are used to interpret the material. (GR)

AJ-106  **Criminal Procedure**
54.00 hrs lecture
Units: 3.00
Advisory: ENGL-101A
Accepted For Credit: CSU
This course covers the principles and procedures of the justice system. The course is an in-depth study of the role and responsibilities of each segment within the Administration of Justice system – law enforcement, judicial, and corrections. (GR)

AJ-107  **Criminal Investigation**
54.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-101A
Accepted For Credit: CSU
This course covers the nature of investigation, crime scene search and recording, interviews and interrogation, sources of information, case preparation, and investigative techniques in specific crimes. (GR)

AJ-108  **Introduction to Forensic Anthropology**
54.00 hrs lecture
Units: 3.00
Cross-referenced Course: ANTH-108
Advisory: ENGL-151B and ENGL-163
Accepted For Credit: CSU
This course introduces the field of forensic anthropology through a study of the history and methods of forensic anthropology and the role it plays in the medico-legal system. Topics include the human skeletal system, forensic archaeology, recovery and techniques for analyzing human skeletal remains. (GC)

AJ-115  **Cyber Crime**
54.00 hrs lecture, 18.00 hrs lab
Units: 3.00
Advisory: ENGL-101A
Accepted For Credit: CSU
This course will give students background in the history and terminology of computer crimes. The investigation of computer crimes and the forensic processing of seized computer data while safeguarding the constitutional rights of individuals will be examined. (GR)

AJ-116  **Criminal Forensics**
54.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-101A
Accepted For Credit: CSU
This course covers training of crime laboratory technicians in photography, scientific analysis, identification and comparison of physical evidence. Emphasis is placed on techniques and tests involved in cases of alcohol and drug intoxication and identification, blood types, fingerprints, ballistics, explosives, ultraviolet techniques, tool marks, and questioned documents. (GR)

AJ-117  **Police and Society**
54.00 hrs lecture
Units: 3.00
Advisory: ENGL-101A
Accepted For Credit: CSU & UC
This course involves an in-depth exploration of roles of AJ practitioners and their agencies. Through interaction and study, Administration of Justice students will become aware of interrelationships and role expectations among various agencies and the public. Emphasis is placed on the professional image of the Administration of Justice system and development of positive relationships between members of the system and the public. (GR)

AJ-118  **Criminology**
54.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-101A
Accepted For Credit: CSU & UC
This course studies human behavior and the reasons and motivations why people commit crimes. It will also examine the nature and extent of crimes as well as causes and prevention of criminality. (GR) C-ID SOCI 160

AJ-119  **Murder in America**
54.00 hrs lecture
Units: 3.00
Cross-referenced Course: PSY-104
Advisory: Eligible for ENGL-101A
Accepted For Credit: CSU
This course surveys the psychological and criminological aspects of murder in America, including serial killers, mass murderers, and terrorism. (GR)
AJ-121  Constitutional Law and the United States
54.00 hrs lecture
Units: 3.00
Cross-referenced Course: PS-106
Advisory: Eligible for ENGL-101A
Accepted For Credit: CSU
This course examines the development of judicial review and the evolving role of the U.S. Supreme Court through analysis of landmark decisions of the Court. In particular, this course will focus on a theoretical discussion exploring the plurality of methods of constitutional interpretation used by justices in the past and present. (GC)

AJ-123  Terrorism
54.00 hrs lecture
Units: 3.00
Advisory: ENGL-101A
Accepted For Credit: CSU
This course examines basic information about the structure and nature of domestic and international terrorism and the roles of state and local law enforcement in national defense. (GR)

AJ-131  Juvenile Justice
54.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-101A
Accepted For Credit: CSU
This course covers causes and forms of juvenile delinquency, the handling of juvenile offenders and victims, the prevention and repression of juvenile delinquency, the diagnosis and referral of juvenile offenders, the organization of community resources, and juvenile law and juvenile court procedures. (GR) C-ID AJ 220

AJ-132  Civil Law
36.00 hrs lecture
Units: 2.00
Advisory: Eligible for ENGL-101A
This course covers the essentials of non-criminal law as it relates to contracts, personal and property rights, torts, marriage and family relations, and the civil action. This course also covers obtaining and enforcing emergency protective restraining orders. (GR)

AJ-135  Drug Enforcement
36.00 hrs lecture
Units: 2.00
Advisory: Eligible for ENGL-101A
This course covers the identification of narcotic and dangerous drugs, the users of drugs and their supply, the law as an agency of drug control, investigation and processing of drug violations, and social solutions to the drug problems. (GR)

AJ-140  POST PC 832 Laws of Arrest
40.00 hrs lecture
Units: 2.00
This course is POST certified as 40 hours PC 832 Laws of Arrest for code enforcement vocations. This course covers professionalism for code enforcement officers, basic legal concepts, the laws of evidence and investigative techniques, and unarmed defense and handcuffing techniques. The course is principally directed at individuals who deal with members of the general public in their regular occupation and who can be expected to enforce code violations by issuing citations, if necessary. Repeatable = 2 times (CR)

AJ-141  Post PC 832 Basic Firearms Qualification
10.00 hrs lecture, 14.00 hrs lab
Units: 1.00
Prerequisite: Students must pass a background fingerprint check through the California Department of Justice at their own expense. The clearance letter must be provided to the Coordinator before entrance to the firing range. This requirement is California State Law.
This course is the basic POST (Police Officer Standards and Training) certified 24-hour firearms training with qualification certificate upon completion. Successful completion of this course will allow the student to enter any enforcement type vocation, for instance, code inspectors, such as park rangers, building inspectors, animal control officers, community service officers, probation officers, security officers, or firefighters anywhere in the State of California. Repeatable = 3 times. (CR)

AJ-195A1  Work Experience Education – Vocational
75.00 hrs lab
Units: 1.00
Accepted For Credit: CSU
Work experience education for students employed in jobs directly related to a major. Units received are based on hours worked. (GC)

AJ-195A2  Work Experience Education – Vocational
150.00 hrs lab
Units: 2.00
Accepted For Credit: CSU
Work experience education for students employed in jobs directly related to a major. Units received are based on hours worked. (GC)

AJ-195A3  Work Experience Education – Vocational
225.00 hrs lab
Units: 3.00
Accepted For Credit: CSU
Work experience education for students employed in jobs directly related to a major. Units received are based on hours worked. (GC)

AJ-195A4  Work Experience Education – Vocational
300.00 hrs lab
Units: 4.00
Accepted For Credit: CSU
Work experience education for students employed in jobs directly related to a major. Units received are based on hours worked. (GC)

AIR FORCE

Division: Arts and Social Sciences

AF-101A  Foundations of the U.S. Air Force
22.50 hrs lecture
Units: 1.00
Accepted For Credit: CSU
Today’s Air Force officer and the Air Force as a whole. (GR)

AF-101B  Foundations of the U.S. Air Force
18.00 hrs lecture, 18.00 hrs lab
Units: 1.00
Accepted For Credit: CSU
Today’s Air Force officer and the Air Force as a whole. (GR)
AH-110 Medical Terminology
22.50 hrs lecture
Units: 1.00
Accepted For Credit: CSU
Introduction to ethics, values, leadership and leadership problems, and communication skills. (GR)

AH-114 Laboratory and Diagnostic Tests
18.00 hrs lecture
Units: 1.00
This course is designed for health science students and RN practitioners. Students will learn the purpose of various lab and diagnostic tests. Using clinical case studies, test results will be presented and analyzed. Not applicable to associate degree. Repeatable = 1 time (CR)

AH-117A Basic Phlebotomy Training
36.00 hrs lecture
Units: 2.00
Prerequisite: AH-110
This course meets the California content standards for basic phlebotomy training. It is the first course in the four course series leading to the Phlebotomy Certificate of Accomplishment and eligibility to sit for the state certification exam as a Phlebotomy Technician I. Not applicable to associate degree. Repeatable = 1 time (GR)

AH-117B Phlebotomy Skills Lab
27.00 hrs lab
Units: 0.50
Prerequisite: AH-117A; must have been taken within one year
This course is the second course of the four course series required for the Phlebotomy Certificate of Accomplishment. In this course students demonstrate what has been learned in the previous phlebotomy course. In a laboratory setting, under the supervision of the phlebotomist instructor, the student will demonstrate safe blood withdrawal techniques for vacuum system, butterfly needle, syringe system, and capillary puncture. The students will collect samples from each other and demonstrate safe transport of specimens. Skill mastery will be assessed through a final practice exam that must be successfully completed to progress to AH-117D, Phlebotomy Externship. Students must have their Health Forms completed to participate in this course. Not applicable to associate degree. Repeatable = 1 time (GR)

AH-117C Advanced Phlebotomy Training
2.00 hrs lecture
Units: 1.00
Prerequisite: AH-117A and AH-117B; both must have been taken within one year
This is the third course in the four course series that meets the California content standards for eligibility to sit for the Phlebotomy Technician I certification exam. All four courses are required to earn the Ohlone College Phlebotomy Certificate of Accomplishment. This course builds upon the content and principles taught in AH-117A, Basic Phlebotomy Training. This course addresses each standard as outlined in the California standards and includes preparation for state certification. Not applicable to associate degree. Repeatable = 1 time (GR)

AH-117D Phlebotomy Externship
108.00 hrs lab
Units: 2.00
Prerequisite: AH-117C; must have been taken within one year
This is the fourth of four courses required to earn the Phlebotomy Certificate of Accomplishment. This is a clinical course in which students are assigned to experienced phlebotomists in clinical settings to practice blood collection, patient interaction, specimen processing, and laboratory function in health care. Students are mentored as they master techniques as required by California regulations. Not applicable to associate degree. Repeatable = 1 time (GR)

AH-118 Advanced Phlebotomy for Practitioners
27.00 hrs lecture
Units: 1.50
Advisory: Phlebotomy work experience within the past five years as required by California law
This course is open to practicing phlebotomists who by law are eligible to sit for the Phlebotomy Technician I certification exam upon successfully completing this course. The content meets the standards as set forth by California law and the Department of Health Services. It prepares students to sit for the certification exam and includes advanced techniques in blood collection. Not applicable to associate degree. Repeatable = 1 time (GR)

AH-121 EKG Interpretation
18.00 hrs lecture
Units: 1.00
Students are introduced to waveform identification, measurements, determination of rhythms, determination of heart rates, and various EKG rhythms and dysrhythmias. This course will also review cardiac anatomy and physiology in relation to various rhythms. Students will practice interpreting EKG rhythms. A brief review of anatomy and physiology is included. Repeatable = 1 time (CR)
**ASL-101A**  
*Principles of American Sign Language I*  
- 90.00 hrs lecture, 18.00 hrs lab  
- Units: 5.00  
- Accepted For Credit: CSU & UC  
- This course covers the beginning fundamental principles of American Sign Language and introduces basic information about the Deaf community and Deaf culture. This course is required for students majoring in American Sign Language and Deaf Studies and is a prerequisite for students wishing to enter the Interpreter Preparation Program. Students are expected to attend outside events at their own expense. (GR)

**ASL-102A**  
*Principles of American Sign Language II*  
- 90.00 hrs lecture, 18.00 hrs lab  
- Units: 5.00  
- Prerequisite: ASL-101A or ASL-101B  
- Accepted For Credit: CSU & UC  
- This course covers the fundamental principles of Level II American Sign Language and introduces more advanced information about the Deaf community and Deaf culture. This course is recommended for students majoring in American Sign Language and Deaf Studies and students wishing to enter the Interpreter Preparation Program. Students are expected to attend outside events at their own expense. (GC)

**ASL-103A**  
*Principles of American Sign Language III*  
- 90.00 hrs lecture, 18.00 hrs lab  
- Units: 5.00  
- Prerequisite: ASL-102A or ASL-102B  
- Accepted For Credit: CSU & UC  
- This course covers the fundamental principles of Level III of American Sign Language for students who have completed ASL-102A and is a further study of the Deaf community and Deaf culture. The course is recommended for students who have completed ASL-102A and desire further study and review. Students are expected to attend outside events at their own expense. (GR)

**ASL-103A4**  
*Principles of American Sign Language III*  
- 54.00 hrs lecture, 54.00 hrs lab  
- Units: 4.00  
- Prerequisite: ASL-102A or ASL-102B  
- Accepted For Credit: CSU  
- This course covers the fundamental principles of Level III of American Sign Language for students who have completed ASL-102A and is a further study of the Deaf community and Deaf culture. It is required for students majoring in American Sign Language/Deaf Studies and students wishing to enter the Interpreter Preparation Program. Students are expected to attend outside events at their own expense. (GR)
ASL-103B Principles of American Sign Language III
90.00 hrs lecture, 18.00 hrs lab
Units: 5.00
Prerequisite: ASL-103A
Accepted For Credit: CSU & UC
This course is an expanded and enhanced Level III study of the fundamental principles of American Sign Language and is a further study of the Deaf community and Deaf culture. This course is recommended for students who have completed ASL-103A and who desire further study and review before taking ASL-104A. Students are expected to attend outside events at their own expense. (GR)

ASL-104A Principles of American Sign Language IV
90.00 hrs lecture, 18.00 hrs lab
Units: 5.00
Prerequisite: ASL-103A or ASL-103B
Accepted For Credit: CSU & UC
This course covers the fundamental principles of Level IV of American Sign Language and continues information about the Deaf community and Deaf culture. This course is required for students majoring in American Sign Language and Deaf Studies and students wishing to enter the Interpreter Preparation Program. The course is for students who have completed ASL-103A or ASL-103B. Students are expected to attend outside events at their own expense. (GR)

ASL-104B Principles of American Sign Language IV
90.00 hrs lecture, 18.00 hrs lab
Units: 5.00
Prerequisite: ASL-104A
Accepted For Credit: CSU & UC
This course is an enhanced and expanded Level IV study of the fundamental principles of American Sign Language and is a further study of the Deaf community and Deaf culture. This course is recommended for students who have finished ASL-104A and desire further study and review. Students are expected to attend outside events at their own expense. (GR)

ASL-140 Deaf Education
54.00 hrs lecture
Units: 3.00
Accepted For Credit: CSU
This course has been designed to provide the student with a general orientation to Deaf/deaf education. The course provides an overview of the historical, philosophical, and social aspects of Deaf education. The course analyzes the impact of Deaf education on hearing families. In addition, it provides an orientation to problems, issues, research, legislation, and current trends in the field of education of the Deaf. Repeatable = 1 time (GR)

ASL-142 Deaf Culture
54.00 hrs lecture
Units: 3.00
Prerequisite: Completion of, or concurrent enrollment in, ASL-101A or ASL-101B
Advisory: ENGL-151B
Accepted For Credit: CSU & UC
This course introduces American Deaf Culture with historical and cultural overview of the American Deaf community and its language, American Sign Language, ASL. Fundamental sociological and anthropological theories will be discussed. Students will be given an opportunity to study and understand minority group dynamics, attitudes and behavior characteristics of the oppressed and oppressor people and the liberation movements. Analysis of the relationship ASL to the history of American Deaf community will be conducted. (GR)

ASL-145 Deaf History
54.00 hrs lecture
Units: 3.00
Prerequisite: ASL-101A or ASL-101B
Accepted For Credit: CSU & UC
This is an in-depth study of noted Deaf persons, Deaf contributions to education and job markets, Deaf heritage, international Deaf history, history of California School of the Deaf-Fremont, and history of Bay Area Deaf organizations. (GR)

ASL-150 Linguistics of ASL
54.00 hrs lecture
Units: 3.00
Prerequisite: ASL-103B and ENGL-151B
Accepted For Credit: CSU & UC
This course is designed to provide students with receptive and expressive knowledge of over 5,000 signs and commonly used phrases. Regional variations of signs will be studied. Conceptual accuracy is emphasized. Students will be able to correctly sign English into ASL and be able to translate ASL into English. This course is recommended for advanced students majoring in American Sign Language and Deaf Studies or who are in the Interpreter Preparation Program. Repeatable = 3 times (GC)

ASL-152 Advanced Fingerspelling
18.00 hrs lecture
Units: 1.00
Prerequisite: ASL-102A or ASL-102B
This course provides concentrated instruction in the receptive and expressive practice of advanced fingerspelling at increasing levels of complexity. It is recommended for advanced students majoring in American Sign Language and Deaf Studies or who are in the Interpreter Preparation Program. Repeatable = 3 times (GC)

ASL-154 Advanced American Sign Language Vocabulary
36.00 hrs lecture
Units: 2.00
Prerequisite: ASL-102A or ASL-102B
This course is designed to provide students with receptive and expressive knowledge of over 5,000 signs and commonly used phrases. Regional variations of signs will be studied. Conceptual accuracy is emphasized. Students will be able to correctly sign English into ASL and be able to translate ASL into English. This course is recommended for advanced students majoring in American Sign Language, Deaf Studies Program, and/or Interpreter Preparation. Repeatable = 3 times (GC)

ASL-155 ASL Literature (Folklore)
54.00 hrs lecture
Units: 3.00
Prerequisite: ASL-102A or ASL-102B
This course is an introduction to the discussion and analysis of ASL literature. Two ASL stories will be studied in depth and analyzed from a variety of perspectives. Taught in ASL only. (GR)

ASL-156 Advanced Reception of ASL
54.00 hrs lecture
Units: 3.00
Prerequisite: ASL-102A or ASL-102B
This course is designed to strengthen the receptive skills of students interested in ASL by analyzing stories, jokes, and experiences of a large variety of Deaf signers. This course is recommended for advanced students in the American Sign Language and Deaf Studies Program or in the Interpreter Preparation programs. (GR)

ASL-157 ASL Storytelling
54.00 hrs lecture
Units: 3.00
Prerequisite: ASL-103B
This course includes various levels and situations from simple to complex ASL stories. Expressive storytelling will incorporate ASL principles, sign order, facial expressions, body expressions, and pantomime. Receptive storytelling will involve critiquing and analyzing given stories. Taught in ASL only. (GR)
ASL-158  **Classifiers in ASL**  
54.00 hrs lecture  
Units: 3.00  
Prerequisite: ASL-102A or ASL-102B  
In this course, students will study the classifier system of ASL. Taught in ASL only. Repeatable = 1 time (GC)

ASL-160  **American Sign Language Field Work**  
54.00 hrs lab  
Units: 1.00  
Prerequisite: ASL-101A or ASL-101B  
This course offers direct experience signing in formal and/or informal conversational settings or projects involving knowledge of ASL and Deaf culture. Repeatable = 3 times (GR)

ASL-161  **American Sign Language Field Work**  
108.00 hrs lab  
Units: 2.00  
Prerequisite: ASL-101A  
This course offers direct experience signing in formal and/or informal conversational settings or projects involving knowledge of ASL and deafness. Repeatable = 3 times (GR)

ASL-181A  **Conversational ASL I**  
54.00 hrs lecture  
Units: 3.00  
Accepted For Credit: CSU  
This course is designed to provide basic conversational skills in the language used by most Deaf people in the United States. Emphasis will be placed on basic American Sign Language structure. Students are expected to attend outside events at their own expense. Repeatable = 1 time (GC)

ASL-181B  **Conversational ASL II**  
54.00 hrs lecture  
Units: 3.00  
Prerequisite: ASL-181A  
Accepted For Credit: CSU  
This course is a continuation of the study of ASL as used in a conversational mode. It is designed to provide intermediate conversational skill in the use of ASL. Students are expected to attend outside events at their own expense. Repeatable = 1 time (GC)

ASL-183  **ASL Skill Building**  
54.00 hrs lab  
Units: 1.00  
Prerequisite: ASL-101A  
This is a course for students wishing to become more proficient in using ASL and to further develop their vocabulary, ASL grammar, and fingerspelling skills. Taught in ASL only. Repeatable = 3 times (GC)

ASL-190A  **Workshop in Beginning ASL I**  
54.00 hrs lecture  
Units: 3.00  
This course is a Beginning Level I basic workshop for students covering selected topics in the area of American Sign Language (ASL), Deaf Education, and Deaf Culture. The theme and content of each workshop varies and is determined by American Sign Language/Deaf Studies instructors and focused to meet the needs of the workshop participants. Repeatable = to a maximum of 9 units for ASL-190A-C (CR)

ASL-190B  **Workshop in Beginning ASL II**  
54.00 hrs lecture  
Units: 3.00  
Prerequisite: ASL-190A  
This course is a Beginning Level II workshop for students covering selected topics in the area of American Sign Language (ASL), Deaf Education, and Deaf Culture. The theme and content for each workshop varies and is determined by American Sign Language/Deaf Studies instructors. Repeatable = 3 times (CR)

ASL-190C  **Workshop in Beginning ASL III**  
54.00 hrs lecture  
Units: 3.00  
Prerequisite: ASL-190B  
This course is an Advanced Beginning Level III workshop for students covering selected topics in the area of American Sign Language (ASL), Deaf Education, and Deaf Culture. The theme and content of each workshop varies and is determined by the American Sign Language/Deaf Studies instructors and focused to meet the needs of the workshop participants. Repeatable = to a maximum of 9 units for ASL-190A-C (CR)

ASL-191A  **Workshop in Intermediate ASL I**  
54.00 hrs lecture  
Units: 3.00  
Prerequisite: ASL-190C  
This course is an Advanced Beginning Level III workshop for students covering selected topics in the area of American Sign Language (ASL), Deaf Education, and Deaf Culture. The theme and content of each workshop varies and is determined by American Sign Language/Deaf Studies instructors. Repeatable = 3 times (CR)

ASL-191B  **Workshop in Intermediate ASL II**  
54.00 hrs lecture  
Units: 3.00  
Prerequisite: ASL-191A  
This course is a Level II Intermediate workshop for students covering selected topics in the area of American Sign Language (ASL), Deaf Education, and Deaf Culture. The theme and content of each workshop varies and is determined by American Sign Language/Deaf Studies instructors. Repeatable = 3 times (CR)

ASL-191C  **Workshop in Intermediate ASL III**  
54.00 hrs lecture  
Units: 3.00  
Prerequisite: ASL-191B  
This course is a Level III Intermediate workshop for students covering selected topics in the area of American Sign Language (ASL), Deaf Education, and Deaf Culture. The theme and content of each workshop varies and is determined by American Sign Language/Deaf Studies instructors. Repeatable = to a maximum of 9 units for ASL-191A-C (CR)

ANTHROPOLOGY  
Division: Science, Engineering, and Mathematics

ANTH-101  **Physical Anthropology**  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Advisory: Eligible for ENGL-151B and ENGL-163  
Accepted For Credit: CSU & UC  
This course is a study of human biology with an emphasis on human evolution and the interaction between biology and culture. Major topics of discussion will be genetics, human variation, primate studies, and the prehistorical fossil record. (GC)
ANTH-102  Cultural Anthropology
54.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-151B and ENGL-163
Accepted For Credit: CSU & UC
This course deals with the study of human society with reference to the development and change of culture. An emphasis will be placed on the comparative review of language, marriage and family, belief systems, wealth, power, and political organizations. (GC)

ANTH-103  Introduction to Archaeology and Prehistory
54.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-151B and ENGL-163
Accepted For Credit: CSU & UC
This course introduces the subject of archaeology through the study of concepts, theories, and methods employed by archaeologists to reconstruct past life ways. Topics include the nature of archaeological research; field methods; data acquisition, analysis, and interpretation; cultural resource management; and an examination of cultural adaptations and change. (GC)

ANTH-104  Survey of North American Indian Cultures
54.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-151B and ENGL-163
Accepted For Credit: CSU & UC
This course will focus on the prehistoric and historic distribution of Native American populations and their respective cultures. Topics to be covered include prehistoric and ethnographic record of North American Indian cultures. This will include social organization, linguistics, religion, post contact history, and contemporary issues of Native Americans. (GC)

ANTH-105  Field Archaeology
18.00 hrs lecture, 108.00 hrs lab
Units: 3.00
Advisory: Eligible for ENGL-151B and ENGL-163
Accepted For Credit: CSU
This course deals with the methods of scientific excavation implementing the techniques of a field archeologist. Emphasis will be on the scientific method as it relates to excavation, classifying, cataloging, and preservation of past human cultures under supervised field and laboratory conditions. Repeatable = 3 times (GC)

ANTH-106  Magic, Witchcraft, and Religion
54.00 hrs lecture
Units: 3.00
Advisory: ANTH-102; eligible for ENGL-151B and ENGL-163
Accepted For Credit: CSU & UC
This course involves the study of belief systems of cultures around the world, examining religion and spirituality from an anthropological perspective. Students will analyze the functions of religious beliefs and the varied expressions of religion through ritual behaviors, use of magic, cures, hallucinogenic drugs, and the importance of the mind-body connection. (GC)

ANTH-108  Introduction to Forensic Anthropology
54.00 hrs lecture
Units: 3.00
Cross-referenced Course: AJ-108
Advisory: ENGL-151B and ENGL-163
Accepted For Credit: CSU
This course introduces the field of forensic anthropology through a study of the history and methods of forensic anthropology and the role it plays in the medico-legal system. Topics include the human skeletal system, forensic archaeology, recovery and techniques for analyzing human skeletal remains. (GC)

ARBC-101A  Elementary Arabic
90.00 hrs lecture, 18.00 hrs lab
Units: 5.00
Accepted For Credit: CSU & UC
This course is an introduction to the speaking, reading, and writing of Arabic including fundamentals of grammar and Arabic culture. (GR)

ARBC-101B  Elementary Arabic
90.00 hrs lecture, 18.00 hrs lab
Units: 5.00
Prerequisite: ARBC-101A or two years of high school Arabic
Accepted For Credit: CSU & UC
This course is a continuation to the speaking, reading, and writing of Arabic and includes fundamentals of grammar and Arabic culture. (GR)

ART-100  Survey of the Arts
54.00 hrs lecture
Units: 3.00
Cross-referenced Course: IS-100, MUS-100, TD-100
Advisory: Eligible for ENGL-151B and ENGL-163
Accepted For Credit: CSU & UC
In this course theatre, art, and music are explored through discussion, historical review, and contemporary issues. The purpose of this course is to increase students’ understanding and enjoyment of the arts. The course is taught by three instructors, one from each discipline. (GR)

ART-101  Art: An Introduction
54.00 hrs lecture
Units: 3.00
Advisory: ENGL-101A
Accepted For Credit: CSU & UC
This course is a survey of the visual arts: painting, sculpture, architecture, and film. The student will be introduced to the various functions of art in our society. The desired outcome is a more critical observer. Requires attendance at selected events offered by Ohlone College at the Gary Soren Smith Center for the Fine and Performing Arts. (GC)
ART-103A  Survey of World Art History – Prehistoric Through 1300 C.E.
72.00 hrs lecture
Units: 4.00
Advisory: ENGL-101A
Accepted For Credit: CSU & UC
This course is a survey of the history of sculpture, architecture, and visual arts throughout the world prior to 1300 CE. The civilizations, regions, and cultures studied are Mesopotamia, Egypt, Ancient Greece and Rome, Early Christian, Islam, African, Pre-Columbian, Asia, and the art of the Americas. (GC) C-ID ARTH 110

ART-103B  Survey of World Art History – 14th Century Through 20th Century
72.00 hrs lecture
Units: 4.00
Advisory: ENGL-101A
Accepted For Credit: CSU & UC
This course is a survey of the history of sculpture, architecture, and visual arts throughout the world after 1300 CE. The civilizations, regions, and cultures studied are Europe, Africa, Asia, and the Americas. (GC) C-ID ARTH 120

ART-104A  2D Design
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Accepted For Credit: CSU & UC
This lecture/studio class will introduce the beginning student to the techniques and concepts related to the organization of two-dimensional imagery. Studio work will include pen and ink, collage, painting, drawing, and bookmaking. Repeatable = 3 times (GC) C-ID ARTS 100

ART-104B  3D Design
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Advisory: ART-104A
Accepted For Credit: CSU & UC
This lecture/studio class is a continuation of ART-104A. A major emphasis will be on the principles of three-dimensional form. Repeatable = 3 times (GC)

ART-104C  Color
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Accepted For Credit: CSU & UC
This lecture/studio class will introduce the beginning student to various theories of color, hands-on experience in mixing colors, and practical observation in color relationships and effects. The quality of color will be explored through hue, value, and saturation. Repeatable = 3 times (GC)

ART-105A  Glass Art and Design
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Accepted For Credit: CSU
This course is an introduction to fundamentals of art and design using glass as a medium. Studies include line, form, shape, color, and spatial relationships. The course covers glass cutting, lamination, copper foil stained glass, casting and fusing techniques. Repeatable = 3 times (GC)

ART-105B  Advanced Glass Fabrication
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Prerequisite: ART-105A
Accepted For Credit: CSU
This course emphasizes further explorations in glass including moldmaking, casting, fusing, slumping, advanced lamination, and torchwork. Repeatable = 3 times (GC)

ART-105C  Three-Dimensional Glass
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Prerequisite: ART-105B
Accepted For Credit: CSU
This course emphasizes 3-dimensional glass, using advanced techniques in kiln forming, casting, abrasive blasting, lamination, and coldworking. Repeatable = 3 times (GC)

ART-106A  Descriptive Drawing
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Accepted For Credit: CSU & UC
This is a basic drawing course designed to teach fundamental drawing skills and techniques. Direct observation, composition, and methods of expressing subject matter—as well as the use of charcoal, pencil, ink, and pastel—will be emphasized. Repeatable = 3 times (GC) C-ID ARTS 110

ART-106B  Intermediate Descriptive Drawing
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Prerequisite: ART-106A
Accepted For Credit: CSU & UC
This course involves a continued exploration of drawing concepts focusing on creative expression and composition. The course emphasizes developing a sustainable studio practice using a variety of methods and materials. Repeatable = 3 times (GC)
ART-107A  Life Drawing
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Prerequisite: ART-106A
Accepted For Credit: CSU & UC
This course involves drawing the human figure from both an anatomical and intuitively observational method. Media used include charcoal, graphite, ink, water color, and oil wash. Repeatable = 3 times (GC)

ART-107B  Life Drawing
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Prerequisite: ART-107A
Accepted For Credit: CSU & UC
This course is a continuation of the work and methodology of ART-107A, but with an emphasis on expressive interpretation in drawing the human figure and the use of color. Repeatable = 3 times (GC)

ART-108  Perspective Drawing
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Advisory: ART-106A
Accepted For Credit: CSU & UC
This is a practical course in the techniques and principles of drawing in one and two point freehand and constructed perspective with an emphasis on drawing interiors and furniture. Repeatable = 3 times (GC)

ART-109A  Beginning Graphic Design I
(Letter Forms and Typography)
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Cross-referenced Course: GA-109A
Advisory: ART-104A
Accepted For Credit: CSU
This course is an introduction to graphic design. It will cover the fundamentals of letter form design with traditional and contemporary alphabets. Studio practice will emphasize the relationships between image and message. Repeatable = 3 times (GC)

ART-109B  Beginning Graphic Design II
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Cross-referenced Course: GA-109B
Prerequisite: ART-109A or GA-109A
Accepted For Credit: CSU & UC
This course is an introduction to the pictorial image and written word as basic components in a format for communications. The studio practice develops student's ability to formulate and communicate a concept into graphic form for both presentation and production. Repeatable = 3 times (GC)

ART-110A  Advanced Graphic Design I
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Cross-referenced Course: GA-109A
Prerequisite: ART-109B or ART-109B
Accepted For Credit: CSU
This is an advanced class. The emphasis is on students' problem-solving ability. It includes comprehensive projects in applied graphics and three-dimensional design. There is instruction in techniques for package design, product visualization, and execution of 3-D design prototypes for presentation and photography. Repeatable = 3 times (GC)

ART-110B  Advanced Graphic Design II
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Cross-referenced Course: GA-110B
Prerequisite: ART-110A or GA-110A
Accepted For Credit: CSU
This course gives advanced attention to design solution and presentation. The course deals with the development of a single all-inclusive graphic design project. The emphasis is on effective client relationship from concept development through assignment completion. Repeatable = 3 times (GC)

ART-111A  Painting – Color and Composition
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Advisory: ART-104A or ART-106A
Accepted For Credit: CSU & UC
This is an introductory course in studio painting practices designed to involve the student in basic studio techniques and experiences with regard to color, composition, and subject matter. Oil paint will be the primary media. Introduction to other painting media will be included in the instruction. Repeatable = 3 times (GC)

ART-111B  Painting
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Prerequisite: ART-111A
Accepted For Credit: CSU & UC
This class continues the approaches studied in ART-111A with an emphasis on form and content of subject matter. Techniques in painting with a student choice of media will be further explored. Repeatable = 3 times (GC)

ART-112  Watercolor
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Advisory: ART-106A
Accepted For Credit: CSU & UC
This course concentrates on water-based media including transparent watercolor, dyes, gouache, and tempera. Brush techniques and investigation of various papers will be included. Repeatable = 3 times (GC)

ART-116A  Basic Sculpture
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Advisory: ART-104A or ART-106A
Accepted For Credit: CSU & UC
This is an introductory course designed to familiarize the student with contemporary forms of sculpture. Studio practice with process and material will be emphasized. Repeatable = 3 times (GC)

ART-116B  Advanced Sculpture
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Prerequisite: ART-116A
Accepted For Credit: CSU & UC
This course is a continuation of ART-116A and will further explore the relationship between sculptural form and personal expression. Studio practice in advanced processes will be emphasized. Repeatable = 3 times (GC)
ART-116C Sculpture and Beyond
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Prerequisite: ART-116B
Accepted For Credit: CSU
This course is an introduction to the fundamental techniques of working with clay and glaze materials, including Raku and hand-building. Repeatable = 3 times (GC)

ART-117A Museum and Gallery Techniques
(Exhibition Production)
18.00 hrs lecture, 54.00 hrs lab
Units: 2.00
Accepted For Credit: CSU
This course is an introduction to the operation and display of visual art within a gallery and museum space. The course involves a broad range of activities covering the care and handling, responsibility, and security of art shown in the College's Art Gallery. Repeatable = 3 times (GC)

ART-117B Museum and Gallery Techniques
(Promotional Graphics)
18.00 hrs lecture, 54.00 hrs lab
Units: 2.00
Accepted For Credit: CSU
This course continues the production and display techniques experienced in ART-117A. The emphasis will be to give students a working understanding of the methods of preparing materials for promoting and disseminating information important to the exhibition of art in the College's gallery. Repeatable = 3 times (GC)

ART-119A 3D Studio Lab
54.00 hrs lab
Units: 1.00
Accepted For Credit: CSU
This class is a lab component of all three-dimensional studio classes in the Art Department. Students will produce portfolio projects in clay, glass, or other sculptural materials. Repeatable = 3 times (CR)

ART-120A Ceramic Studio Development and Maintenance I
54.00 hrs lab
Units: 1.00
Prerequisite: ART-121B
Accepted For Credit: CSU
This course is an introduction to the development and maintenance of a ceramic studio. Students will gain general and practical working experience in the acquisition, installation, and use of all necessary studio equipment and supplies by helping to maintain the Ohlone ceramic studio. The machinery includes kilns, wheels, pug mill, slab roller, extruder, slip mixer, airbrush, spray booth, compressor, glaze materials, and ceramic library. Repeatable = 3 times (GC)

ART-120B Ceramic Studio Development and Maintenance II
54.00 hrs lab
Units: 1.00
Prerequisite: ART-121B
Accepted For Credit: CSU
This course is a continuation of ART-120A. Students will gain general and practical working experience in the acquisition, installation, and use of all necessary studio equipment and supplies by helping to maintain the Ohlone ceramic studio. In addition, the students will train incoming students on the appropriate treatment and use of equipment. Repeatable = 3 times (GC)

ART-121A Introductory Ceramics I
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Accepted For Credit: CSU & UC
This course is an introduction to the fundamental techniques of wheel-thrown and hand-constkruclay forms. This is a survey of clay and glaze materials and their ceramic applications. It includes firing of high temperature and low temperature stoneware and porcelain clays, including Raku and burnishing. Repeatable = 3 times (GC)

ART-121B Introductory Ceramics II
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Prerequisite: ART-121A
Accepted For Credit: CSU & UC
This class is a continuation of ART-121A. The emphasis is on wheel throwing, advanced handbuilding, glaze application, and understanding the loading and firing of bisque kilns. Repeatable = 3 times (GC)

ART-122A Ceramic Throwing I
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Prerequisite: ART-121B
Accepted For Credit: CSU & UC
The course emphasis is on the designing, throwing, and glazing of more complex and difficult forms, including lidded containers, closed shapes, thin-necked bottles, and teapot sets. Repeatable = 3 times (GC)

ART-122B Ceramic Throwing II
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Prerequisite: ART-121B
Accepted For Credit: CSU & UC
This course is a continuation of ART-122A. The emphasis is on designing, throwing, and glazing of more complex and difficult forms. This involves working on some ceramic projects for weeks at a time. There will be projects involving a combination of thrown and hand-built forms. This course will also emphasize appropriate glazes for particular forms. Repeatable = 3 times (GC)

ART-123 Ceramic Decorating
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Prerequisite: ART-121B
Accepted For Credit: CSU & UC
This course emphasizes all aspects of ceramic decoration including: texture, carving, flattening, applied ornament, colored clays, engobes, brush making, resists, stencils, slip trailing, combing, marbling, commercial underglazes, raw oxides, and overglazes. Repeatable = 3 times (GC)

ART-124 Advanced Ceramic Decorating
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Prerequisite: ART-121B
Accepted For Credit: CSU & UC
The emphasis is on designing and forming completed ceramic works for the market. This course includes large outdoor ceramic shapes such as tiles and murals and non-functional ceramic sculpture. Repeatable = 3 times (GC)
ART-131 History of Photography
54.00 hrs lecture
Units: 3.00
Accepted For Credit: CSU & UC
This course is a survey of photography as an historical and contemporary form of art and communication. The student will develop appreciation for and comprehension of the issues, practices, and theories involved in visual communication as well as gain insights into the role of photography with regard to social, cultural, and political shifts and events from its inception in the early 19th century to the present day. (GC)

ART-133A Black and White Photography
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Accepted For Credit: CSU & UC
This course covers the fundamental processes of photography including camera mechanics, film exposure, optics, composition, and darkroom skills required to produce quality continuous tone black and white prints. Course will include an overview of historic and contemporary photography. A camera with manual controls is required. Repeatable = 3 times (GC)

ART-133B Intermediate Black and White Photography
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Prerequisite: ART-133A
Accepted For Credit: CSU
This is a darkroom course in black and white photography. Students refine their use of light sensitive materials and gain hands-on experience with alternative photographic processes. This course affords the opportunity for students to emphasize creativity and artistic style. Repeatable = 3 times (GC)

ART-133C Advanced Black and White Photography
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Prerequisite: ART-133B
Accepted For Credit: CSU & UC
This is a darkroom course in black and white photography. Students learn about camera exposure as it relates to print controls. The course spends time on previsualization techniques and affords the opportunity for students to emphasize creativity and artistic style. Students work independently on photography projects of their own design. Repeatable = 3 times (GC)

ART-138A Beginning Photoshop
27.00 hrs lecture, 81.00 hrs lab
Units: 3.00
Cross-referenced Course: GA-138A
Accepted For Credit: CSU & UC
This course is for photographers with limited experience or new to Adobe Photoshop. Students learn how to work with a digital “darkroom” using images supplied by the instructor for this purpose. Topics included are image file management and organization, file formats, resolution, basic image editing, selective image editing, scanning, preparing images for web-based application, how to purchase a digital camera, and more. A digital camera is not required. Repeatable = 3 times (GC)

ART-138B Intermediate Photoshop
27.00 hrs lecture, 81.00 hrs lab
Units: 3.00
Cross-referenced Course: GA-138B
Prerequisite: ART-138A or GA-138A
Accepted For Credit: CSU
This course is for photographers wishing to increase their working knowledge of Adobe Photoshop. Students work with a digital “darkroom” using original images as well as images supplied by the instructor. Topics included are working with layers and masks, opacity and blend modes, transforming, working with text, camera raw, actions and smart filters, print and web-based workflow. A digital camera is not required. Repeatable = 3 times (GC)

ART-139A Beginning Digital Photography
18.00 hrs lecture, 108.00 hrs lab
Units: 3.00
Cross-referenced Course: GA-169A
Accepted For Credit: CSU & UC
This course explores the photographer’s creative process from several directions. Students will undertake photographic projects designed to provide engagement with a variety of subject matter and ways of photographing, look at photographic work in online and local galleries and museums, consider current issues having to do with photographic technologies, discuss their photographs with other students in an effort to improve their creative processes. Technical instruction will include camera functions, resizing and saving digital files, and minor image modification. For intense technical instruction see ART-138A and ART-138B. Repeatable = 3 times (GC)

ART-139B Intermediate Digital Photography
18.00 hrs lecture, 108.00 hrs lab
Units: 3.00
Prerequisite: ART-139A or GA-169A
Cross-referenced Course: GA-169B
Accepted For Credit: CSU
This course continues an exploration of the photographer’s creative process from several directions. Students will undertake photographic projects designed to provide engagement with a variety of subject matter and ways of photographing; complete an extended photographic project of their choosing and receive guidance from the instructor and students; look at photographic work in online and local galleries and museums; consider current issues around photographic technologies; discuss their photographs with other students in an effort to improve their creative processes. Students will formalize their individual projects as books or online galleries and museums; consider current issues around photographic technologies; discuss their photographs with other students in an effort to improve their creative processes. Technical instruction will include camera functions, resizing and saving digital files, and minor image modification. For intense technical instruction see ART-138A and ART-138B. Students should consider completing ART-138A prior to enrolling in this course, but it is not a requirement. Repeatable = 3 times (GC)

Did you know???
The California Community College system enrolls almost one-fourth of all 20 to 24-year olds in California, with participation rates of 236 per 1,000 for 2010-2011.
Source: Accountability Reporting for Community Colleges
ART-146  Photography/Graphic Arts Newspaper Staff  
9.00 hrs lecture, 27.00 hrs lab  
Units: 1.00  
Cross-referenced Course: JOUR-146  
Advisory: ART-106A or ART-133A  
Accepted For Credit: CSU  
Staff members initiate, plan, and complete photographic or graphic art assignments for publication in the college newspaper and/or magazine. Training emphasizes use of techniques and skills that communicate ideas effectively to a mass media audience. Photographers and artists have access to Macintosh computers, scanners, and PhotoShop for completion of assignments. Students are also introduced to legal and ethical responsibilities. ART-146 students are expected to produce one photo/graphic per issue. Repeatable = to a maximum of 9 units (GC)  

ART-147  Photography/Graphic Arts Newspaper Staff  
18.00 hrs lecture, 54.00 hrs lab  
Units: 2.00  
Cross-referenced Course: JOUR-147  
Advisory: ART-106A or ART-133A  
Accepted For Credit: CSU  
Staff members initiate, plan, and complete photographic or graphic art assignments for publication in the campus newspaper and/or magazine. Training emphasizes use of techniques and skills that communicate ideas effectively to a mass media audience. Photographers and artists have access to Macintosh computers, scanners and PhotoShop for completion of assignments. Students are also introduced to legal and ethical responsibilities. ART-147 students are expected to produce two photos or graphics per issue. Repeatable = to a maximum of 9 units (GC)  

ART-148  Photography/Graphic Arts Newspaper Staff  
36.00 hrs lecture, 54.00 hrs lab  
Units: 3.00  
Cross-referenced Course: JOUR-148  
Advisory: ART-106A or ART-133A  
Accepted For Credit: CSU  
Staff members initiate, plan, and complete photographic or graphic art assignments for publication in the college newspaper and/or magazine. Training emphasizes use of techniques and skills that communicate ideas effectively to a mass media audience. Photographers and artists have access to digital cameras, Macintosh computers, scanners, and PhotoShop for completion of assignments. Students are also introduced to legal and ethical responsibilities. ART-148 students are expected to produce three photos or graphics per issue. This course is usually reserved for managers and editors. Repeatable = to a maximum of 9 units (GC)  

ART-150A  Interior Design Concepts  
54.00 hrs lecture  
Units: 3.00  
Cross-referenced Course: ID-150A  
Accepted For Credit: CSU  
In this introductory course, students analyze interiors using basic design concepts, principles, and techniques used by professional interior designers, and case studies in problem solving with an emphasis on residential interiors are presented. (GC)  

ART-150B  Interior Design  
36.00 hrs lecture, 72.00 hrs lab  
Units: 3.00  
Cross-referenced Course: ID-150B  
Prerequisite: ART-150A or ID-150A  
Accepted For Credit: CSU  
This course is a continuation of ART-150A. Interior design theories and methodologies are explored in depth through case studies emphasizing the design of public space. Repeatable = 3 times (GC)  

ART-151  Visualization and Presentation  
36.00 hrs lecture, 72.00 hrs lab  
Units: 3.00  
Cross-referenced Course: ID-151  
Accepted For Credit: CSU  
This course familiarizes students with current methods and materials used in the design industry to develop concepts and communicate ideas. Students will prepare projects for a design portfolio. Repeatable = 3 times (GC)  

ART-153  History of Decorative Arts  
54.00 hrs lecture  
Units: 3.00  
Cross-referenced Course: ID-153  
Accepted For Credit: CSU & UC  
Students study furniture construction, styles, and periods in conjunction with the architecture and related decorative arts of each era from ancient times to the present. This course includes political, religious, and cultural histories which significantly influenced these arts. (GC)  

ART-154  Contemporary Home Design  
36.00 hrs lecture  
Units: 2.00  
Cross-referenced Course: ID-154  
Accepted For Credit: CSU  
Students study the architectural history of home design and learn practical applications of information relating to design, construction methods, and economic practices. (GC)  

ART-155A  Architectural Drafting for Interior Design  
36.00 hrs lecture, 72.00 hrs lab  
Units: 3.00  
Cross-referenced Course: ID-155A  
Advisory: Concurrent with ART-163, GA-163, or ID-163  
Accepted For Credit: CSU  
This course will introduce basic drafting techniques as related to architectural working drawings for interior design. Construction materials and procedures will be discussed. Repeatable = 3 times (GC)  

ART-155B  CAD for Interior Design  
36.00 hrs lecture, 72.00 hrs lab  
Units: 3.00  
Cross-referenced Course: ID-155B  
Advisory: ART/ID-155A  
Accepted For Credit: CSU  
This course focuses on the fundamentals of computer-aided drafting as related to interior design and architectural drawings. Understanding CAD concepts and using commands are emphasized. Drawing skills are learned and developed by applying these concepts to solve practical laboratory problems. Repeatable = 3 times (GC)  

ART-156  Architectural Modelmaking for Interior Design  
36.00 hrs lecture, 72.00 hrs lab  
Units: 3.00  
Cross-referenced Course: ID-156  
Accepted For Credit: CSU  
Scale models will be developed in this class for presenting and studying architectural interior spaces. A wide range of materials and processes will be explored. Repeatable = 3 times (GC)  

ART-157  Professional Practice for Interior Design  
54.00 hrs lecture  
Units: 3.00  
Cross-referenced Course: ID-157  
This class introduces basic business practices for interior designers. It also includes an overview of career paths, business planning and organization, professional associations, marketing, sales, wholesale resource development, contractual obligations, and ethics. It is designed for people preparing to enter the field of interior design. (GC)
### ART-158  Textiles
36.00 hrs lecture, 72.00 hrs lab  
Units: 3.00  
Cross-referenced Course: ID-158  
Accepted For Credit: CSU & UC  
This is a comprehensive course in the study of textiles as related to interior design. Fiber and fabric construction and characteristics are examined; textile choices are evaluated and analyzed for safety, functionality, and aesthetics; and the impacts of textiles on interior environments are considered. Students gain an empirical understanding of the nature of textiles through hands-on projects in the laboratory component. Repeatable = 3 times (GC)

### ART-159A  Applied Design: Residential Lighting
18.00 hrs lecture  
Units: 1.00  
Cross-referenced Course: ID-159A  
Accepted For Credit: CSU  
This seminar will present an overview of basic considerations necessary to plan, choose, and place lighting fixtures throughout a home to help define space, articulate atmosphere, direct attention, and facilitate activities. (GC)

### ART-159B  Applied Design: Color for the Home
18.00 hrs lecture  
Units: 1.00  
Cross-referenced Course: ID-159B  
Accepted For Credit: CSU  
This seminar will explore various approaches that may be followed to arrive at color schemes that are satisfying, comfortable, and exciting. (GC)

### ART-160A  Computer Graphics I  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Cross-referenced Course: BA-160A, GA-160A, CS-160A  
Accepted For Credit: CSU & UC  
This course is an introduction to microcomputers and to the creation of computer-generated graphics. This course examines the variety of software/hardware tools and techniques available for the production of computer-made imagery. The emphasis is on hard-copy production using printers, plotters, and other reproduction methods. This course also covers design principles, business graphics, and elementary programming principles. Repeatable = 3 times (GC)

### ART-160B  Computer Graphics II  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Cross-referenced Course: BA-160B, GA-160B, CS-160B  
Prerequisite: GA-160A, ART-160A, BA-160A, or CS-160A  
Accepted For Credit: CSU  
This course is a continuation of ART-160A. The emphasis in this course is on developing intermediate and advanced skills needed to operate a computer graphics work station. The students complete projects of their choice using more complex Paint and CAD software, printers, and plotters. Repeatable = 3 times (GC)

### ART-161A  Digital Graphics I
18.00 hrs lecture, 54.00 hrs lab  
Units: 2.00  
Cross-referenced Course: GA-161A, CAOT-161A  
Accepted For Credit: CSU  
This course is an overview of computer graphics on desktop computers for graphic designers, artists, typographers, and for business applications. This course will cover hardware and software including laser printers, ink jet printers, scanners, tablets, and bit-mapped and vector-based graphics programs. This course also covers design principles and business graphics. The course emphasis is on the creation of a portfolio of computer graphics drawings. Repeatable = 3 times (GC)

### ART-161B  Digital Graphics II
18.00 hrs lecture, 54.00 hrs lab  
Units: 2.00  
Cross-referenced Course: GA-161B, CAOT-161B  
Prerequisite: GA-161A, ART-161A, or CAOT-161A  
Accepted For Credit: CSU  
This course is a continuation of ART-161A. The emphasis in this course is on developing intermediate and advanced skills needed to set up and operate a digital graphics work station and publish on the Web. Students complete projects of their choice using complex graphics software, scanners, tablets, and printers. The course emphasis is on the continued development of a portfolio of computer images. Repeatable = 3 times (GC)

### ART-163  Digital Arts Lab – Macintosh
27.00 hrs lab  
Units: 0.50  
Cross-referenced Course: GA-163, ID-163  
This course is a lab component for all courses taught on the Macintosh and on drafting equipment in these areas: Art, Graphic Arts/Computer Graphics, Photography, and Interior Design. Students will produce digital graphic and drafting projects for art related classes. Repeatable = 3 times (CR)

### ASTRONOMY

Division: Science, Engineering, and Mathematics

#### ASTR-101A  General Astronomy of the Solar System
54.00 hrs lecture  
Units: 3.00  
Advisory: MATH-151 and ASTR-102  
Accepted For Credit: CSU & UC  
This course provides the student with an introduction to the history, principles, methods, and fundamentals of astronomy. (GR)

#### ASTR-101B  General Astronomy Beyond the Solar System
54.00 hrs lecture  
Units: 3.00  
Advisory: ASTR-102  
Accepted For Credit: CSU & UC  
This course is an introduction to the fundamental principles and the dynamics of the astronomy beyond the Solar System. (GR)
ASTR-102  
**General Astronomy Lab**
54.00 hrs lab  
Units: 1.00  
Corequisite: ASTR-101A or ASTR-101B  
Advisory: MATH-151  
Accepted For Credit: CSU & UC  
This is an introductory lab course covering the methods and fundamentals of astronomy through inquiry and experiments. (GR)

ATHLETICS  
Division: Exercise Science and Athletics

**ATHL-101A2**  
**Functional Sports Performance**
36.00 hrs lab  
Units: 0.50  
Advisory: Medical check within the last year  
Accepted For Credit: CSU & UC  
This course is for incoming student athletes to perform and develop their skills as they relate to their specific sport. This course will also be an opportunity for specific coaches to evaluate individual players and to better identify deficiencies prior to the start of the season. Repeatable = 2 times (GC)

**ATHL-101A3**  
**Functional Sports Performance**
54.00 hrs lab  
Units: 1.00  
Advisory: Medical check within the last year  
Accepted For Credit: CSU & UC  
This course is for incoming student athletes to perform and develop their skills as they relate to their specific sport. This course will also be an opportunity for specific coaches to evaluate individual players and to better identify deficiencies prior to the start of the season. Repeatable = 2 times (GC)

**ATHL-110A2**  
**Sport Specific Training**
36.00 hrs lab  
Units: 0.50  
Advisory: Medical check within the last year  
Accepted For Credit: CSU & UC  
This course is designed to improve neuromuscular conditioning and agility related to sport-specific movements. Course is designed for intercollegiate-level athletes. Repeatable = 2 times (GR)

**ATHL-110A3**  
**Sport Specific Training**
54.00 hrs lab  
Units: 1.00  
Advisory: Medical check within the last year  
Accepted For Credit: CSU & UC  
This course is designed to improve neuromuscular coordination and agility related to sport-specific movements. Course is designed for intercollegiate-level athletes. Repeatable = 2 times (GR)

**ATHL-112A2**  
**Advanced Strength Training**
36.00 hrs lab  
Units: 0.50  
Advisory: Medical clearance within the last year  
Accepted For Credit: CSU & UC  
This activity class is designed to assist the student athlete with advanced strength training techniques for personal muscular development. Repeatable = 2 times (GC)

**ATHL-112A3**  
**Advanced Strength Training**
54.00 hrs lab  
Units: 1.00  
Advisory: Medical clearance within the last year  
Accepted For Credit: CSU & UC  
This activity class is designed to assist the student athlete with advanced strength training techniques for personal muscular development. Repeatable = 2 times (GC)

**ATHL-120A2**  
**Cross Training for the Athlete**
36.00 hrs lab  
Units: 0.50  
Advisory: Medical clearance within the last year  
Accepted For Credit: CSU & UC  
This course allows for the athlete to continue their strength and conditioning requirement while exploring alternate methods of exercise. There will be opportunity to develop new strength training techniques, focus on specific systems of the body such as the cardiorespiratory system, and to achieve a sense of body readiness when it pertains to an upcoming sports season. Repeatable = 2 times (GR)

**ATHL-120A3**  
**Cross Training for the Athlete**
54.00 hrs lab  
Units: 1.00  
Advisory: Medical clearance within the last year  
Accepted For Credit: CSU & UC  
This course allows for the athlete to continue their strength and conditioning requirement while exploring alternate methods of exercise. There will be opportunity to develop new strength training techniques, focus on specific systems of the body such as the cardiorespiratory system, and to achieve a sense of body readiness when it pertains to an upcoming sports season. Repeatable = 2 times (GR)

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**Did you know?**

During 2011-2012 Ohlone’s athletic teams won two Coast Conference Championships in Women’s Basketball and Men’s Baseball (both for the third year in a row!) and six teams competed in the post season championships (Women’s Soccer, Women’s Basketball, Men’s Basketball, Softball, Baseball, Women’s Swimming)!
ATHL-122A2 Progressive Weight Training
36.00 hrs lab
Units: 0.50
Advisory: Medical clearance within the last year
Accepted For Credit: CSU & UC
Set in the Fitness Lab, this course includes the use of free weights, machine weights, and lifting platforms to develop and improve muscular strength and endurance. Repeatable = 2 times (GC)

ATHL-122A3 Progressive Weight Training
54.00 hrs lab
Units: 1.00
Advisory: Medical clearance within the last year
Accepted For Credit: CSU & UC
Set in the Fitness Lab, this course includes the use of free weights, machine weights, and lifting platforms to develop and improve muscular strength and endurance. Repeatable = 2 times (GC)

ATHL-220 Intercollegiate Volleyball, Women
180.00 hrs lab
Units: 3.00
Prerequisite: Medical clearance within the last year
Accepted For Credit: CSU & UC
This course is designed for student-athletes to participate in intercollegiate women’s volleyball. Students will refine volleyball specific skills, improve their strength and conditioning, and develop team concepts. There will be a focus on the mental game and how it relates to personal and team success. Repeatable = 2 times (GC)

ATHL-222 Intercollegiate Soccer, Women
180.00 hrs lab
Units: 3.00
Prerequisite: Medical clearance within the last year
Accepted For Credit: CSU & UC
This course is designed for student-athletes to participate in intercollegiate women’s soccer. Students will refine sports specific skills, improve their strength and conditioning, and develop team concepts. There will be a focus on the mental game and how it relates to personal and team success. Repeatable = 2 times (GC)

ATHL-223 Intercollegiate Soccer, Men
180.00 hrs lab
Units: 3.00
Prerequisite: Medical clearance within the last year
Accepted For Credit: CSU & UC
This course is designed for student-athletes to participate in intercollegiate men’s soccer. Students will refine sports specific skills, improve their strength and conditioning, and develop team concepts. There will be a focus on the mental game and how it relates to personal and team success. Repeatable = 2 times (GC)

ATHL-224 Intercollegiate Waterpolo, Women
180.00 hrs lab
Units: 3.00
Prerequisite: Medical clearance within the last year
Accepted For Credit: CSU & UC
This course is designed for student-athletes to participate in intercollegiate women’s water polo. Students will refine sports specific skills, improve their strength and conditioning, and develop team concepts. There will be a focus on the mental game and how it relates to personal and team success. Repeatable = 2 times (GC)

ATHL-225 Intercollegiate Waterpolo, Men
180.00 hrs lab
Units: 3.00
Prerequisite: Medical clearance within the last year
Accepted For Credit: CSU & UC
This course is designed for student-athletes to participate in intercollegiate men’s water polo. Students will refine sports specific skills, improve their strength and conditioning, and develop team concepts. There will be a focus on the mental game and how it relates to personal and team success. Repeatable = 2 times (GC)

ATHL-226 Intercollegiate Basketball, Women
180.00 hrs lab
Units: 3.00
Prerequisite: Medical clearance within the last year
Accepted For Credit: CSU & UC
This course is designed for student-athletes to participate in intercollegiate women’s basketball. Students will refine sports specific skills, improve their strength and conditioning, and develop team concepts. There will be a focus on the mental game and how it relates to personal and team success. Repeatable = 2 times (GC)

ATHL-227 Intercollegiate Basketball, Men
180.00 hrs lab
Units: 3.00
Prerequisite: Medical clearance within the last year
Accepted For Credit: CSU & UC
This course is designed for student-athletes to participate in intercollegiate men’s basketball. Students will refine sports specific skills, improve their strength and conditioning, and develop team concepts. There will be a focus on the mental game and how it relates to personal and team success. Repeatable = 2 times (GC)

ATHL-228 Intercollegiate Swimming, Women
180.00 hrs lab
Units: 3.00
Prerequisite: Medical clearance within the last year
Accepted For Credit: CSU & UC
This course is designed for student-athletes to participate in intercollegiate women’s swimming. Students will refine sports specific skills, improve their strength and conditioning, and develop team concepts. There will be a focus on the mental game and how it relates to personal and team success. Repeatable = 2 times (GC)

ATHL-229 Intercollegiate Swimming, Men
180.00 hrs lab
Units: 3.00
Prerequisite: Medical clearance within the last year
Accepted For Credit: CSU & UC
This course is designed for student-athletes to participate in intercollegiate men’s swimming. Students will refine sports specific skills, improve their strength and conditioning, and develop team concepts. There will be a focus on the mental game and how it relates to personal and team success. Repeatable = 2 times (GC)

ATHL-230 Intercollegiate Softball, Women
180.00 hrs lab
Units: 3.00
Prerequisite: Medical clearance within the last year
Accepted For Credit: CSU & UC
This course is designed for student-athletes to participate in intercollegiate women’s softball. Students will refine sports specific skills, improve their strength and conditioning, and develop team concepts. There will be a focus on the mental game and how it relates to personal and team success. Repeatable = 2 times (GC)
ATHL-231  
Intercollegiate Baseball, Men  
180.00 hrs lab  
Units: 3.00  
Prerequisite: Medical clearance within the last year  
Accepted For Credit: CSU & UC  
This course is designed for student-athletes to participate in intercollegiate men's baseball. Students will refine sports specific skills, improve their strength and conditioning, and develop team concepts. There will be a focus on the mental game and how it relates to personal and team success. Repeatable = 2 times (GC)

ATHL-262  
Coaching Volleyball  
18.00 hrs lecture, 108.00 hrs lab  
Units: 3.00  
Prerequisite: Medical clearance within the last year  
Accepted For Credit: CSU & UC  
This course is a study of fundamental offensive and defensive techniques and strategies as they apply to teaching and/or coaching volleyball. This course includes the principles of how to scout games, critique athletic skills, and plan a practice schedule. Repeatable = 2 times (GC)

ATHL-264  
Coaching Soccer  
18.00 hrs lecture, 108.00 hrs lab  
Units: 3.00  
Prerequisite: Medical clearance within the last year  
Accepted For Credit: CSU & UC  
This course is a study of fundamental offensive and defensive techniques and strategies as they apply to teaching and/or coaching soccer. This course includes the principles of how to scout games, critique athletic skills, and plan a practice schedule. Repeatable = 2 times (GC)

ATHL-265  
Coaching Basketball  
18.00 hrs lecture, 108.00 hrs lab  
Units: 3.00  
Prerequisite: Medical clearance within the last year  
Accepted For Credit: CSU & UC  
This course is designed for students who wish to learn fundamental offensive and defensive techniques and strategies in basketball as they apply to teaching and/or coaching. The course will also include the principles of scouting, critiquing athletic skills, and planning a practice schedule. Repeatable = 2 times (GC)

ATHL-267  
Coaching Baseball  
18.00 hrs lecture, 108.00 hrs lab  
Units: 3.00  
Prerequisite: Medical clearance within the last year  
Accepted For Credit: CSU & UC  
This course is a study of fundamental offensive and defensive techniques and strategies as they apply to teaching and/or coaching baseball. This course includes the principles of how to scout games, critique athletic skills, and plan a practice schedule. Repeatable = 2 times (GC)

BIOL-101A  
Principles of Biology – Molecular and Cellular  
54.00 hrs lecture, 108.00 hrs lab  
Units: 5.00  
Prerequisite: CHEM-101A  
Advisory: Eligible for ENGL-151B and ENGL-163; BIOL-130  
Accepted For Credit: CSU & UC  
This course is the first of a two-semester course that provides an introduction to biological principles for biology and health professions majors. Topics emphasized include biochemistry, cell structure and function, metabolism, cellular reproduction, Mendelian genetics, molecular genetics, genetics of prokaryotes and viruses, biotechnological techniques, and evolution. Students taking this course should plan to also take Biology 101B. (GR)

BIOL-101B  
Principles of Biology – Organisms and Systems  
54.00 hrs lecture, 108.00 hrs lab  
Units: 5.00  
Prerequisite: BIOL-101A  
Advisory: Eligible for ENGL-151B and ENGL-163  
Accepted For Credit: CSU & UC  
This course is an introduction to biological principles for biology and health professions majors. Topics emphasized include evolution, systematics, prokaryote and eukaryote diversity (including a survey of the Kingdoms Protista, Fungi, Animalia, and Plantae), anatomy and physiology of animals, plant structure and function, and ecology. This course completes the lower-division core curriculum in biology for biology and pre-health professions majors. (GR)

BIOL-103A  
Human Anatomy and Physiology  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Prerequisite: Completion within past three years of BIOL-130 and CHEM-109  
Advisory: Eligible for ENGL-101A and CHEM-109  
Accepted For Credit: CSU & UC  
This course will cover the cell biology, anatomy, histology, and physiology of the following body systems: integumentary, skeletal, muscles, nervous, endocrine, and reproductive systems. Key concepts covered will include homeostasis, structure/function relationships, the physiology of excitable membranes, and interactions of body systems. (GR)

BIOL-103B  
Human Anatomy and Physiology  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Prerequisite: BIOL-103A  
Accepted For Credit: CSU & UC  
This course is the second semester of the one year anatomy and physiology sequence. It will cover the cardiovascular, lymphatic, immune, respiratory, renal and digestive systems of the human body. Laboratories include animal and cadaver dissection, histology and physiological recordings. (GR)

BIOL-104  
Basic Human Anatomy and Physiology  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Advisory: BIOL-130 within past 3 years  
Accepted For Credit: CSU & UC  
This course surveys the structure and function of the major organ systems of the human body. Emphasis is on homeostasis and regulatory mechanisms. Cadaver demonstrations will be presented. (GR)
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
<th>Credits</th>
<th>Advisory</th>
<th>Corequisite</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL-105</td>
<td>Heredity, Evolution, and Society</td>
<td>54.00</td>
<td>3.00</td>
<td>Accepted For Credit: CSU &amp; UC</td>
<td>This course is an introduction to the principles of genetics and evolution for non-science majors. The mechanisms of heredity and evolution will be studied with an emphasis on the human aspect of both subjects. (GC)</td>
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<tr>
<td>BIOL-106</td>
<td>Microbiology</td>
<td>54.00</td>
<td>5.00</td>
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<td>This course presents basic microbiology with an emphasis on the medical significance of microorganisms, methods to study and control microbes, and the principles of aseptic technique. (GR)</td>
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<tr>
<td>BIOL-107</td>
<td>Microbiology and Infectious Diseases</td>
<td>54.00</td>
<td>3.00</td>
<td>Accepted For Credit: CSU &amp; UC</td>
<td>This course is directed toward understanding the biology of microorganisms, their relationship to disease, their control, and the human defense system. (GR)</td>
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<tr>
<td>BIOL-108</td>
<td>Human Ecology</td>
<td>54.00</td>
<td>3.00</td>
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<td>Human Ecology is an interdisciplinary, general education course that identifies problems created by man’s modification of his environment, presents solutions to these problems, and offers appropriate alternatives. (GC)</td>
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<tr>
<td>BIOL-109</td>
<td>Biology of Sexual Reproduction</td>
<td>54.00</td>
<td>3.00</td>
<td>Accepted For Credit: CSU &amp; UC</td>
<td>This course presents anatomy, physiology, and behavioral aspects of human sexual reproduction with emphasis on functional mechanisms. (GC)</td>
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<tr>
<td>BIOL-114</td>
<td>Introduction to Plant Biology</td>
<td>45.00</td>
<td>3.00</td>
<td>Accepted For Credit: CSU &amp; UC</td>
<td>This course provides a basic introduction to plant Biology and careers related to plant biology. Topics include basic plant structure, plant growth and development, genetics, plant molecular biology, plant genetic engineering, plant culture techniques and an introduction to California agriculture. (GR)</td>
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</tr>
<tr>
<td>BIOL-130</td>
<td>Introduction to Biology</td>
<td>54.00</td>
<td>4.00</td>
<td>Accepted For Credit: CSU &amp; UC</td>
<td>This course is an introduction to biological principles for non-science majors. Fundamental biological principles are covered including cell structure and function, ecology, evolution, genetics, taxonomy, and reproduction. (GC)</td>
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</tr>
<tr>
<td>BIOL-131D</td>
<td>Review of Biological Concepts</td>
<td>18.00</td>
<td>1.00</td>
<td>Corequisite: Concurrent enrollment in the appropriate biology classes</td>
<td>This course is designed to review course content in selected Biology course(s). This course introduces study techniques and more in-depth discussions of basic biological principles in the selected courses. Repeatable = 3 times (CR)</td>
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<tr>
<td>BIOL-140</td>
<td>Sierra Nevada Natural History</td>
<td>36.00</td>
<td>3.00</td>
<td>Accepted For Credit: CSU</td>
<td>An introduction to the plants, animals, and geology of the Sierra Nevada. A three-day camping and learning experience in the Sierra Nevada will take place at the end of the semester. Emphasis is on learning the common plants and animals of the region. Recommended for anyone interested in natural history or ecology of the Sierra Nevada. (GC)</td>
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<tr>
<td>BIOL-141</td>
<td>Marine Biology</td>
<td>54.00</td>
<td>3.00</td>
<td>Accepted For Credit: CSU</td>
<td>This course covers basic concepts of marine ecosystems including oceanographic principles, ecology, and a survey of marine habitats and diversity of marine organisms. Will include two field trips to pacific tidal zones and to San Francisco Bay ecosystems. (GR)</td>
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<tr>
<td>BIOL-142</td>
<td>Environmental Biology</td>
<td>54.00</td>
<td>4.00</td>
<td>Cross-referenced Course: ENVS-142</td>
<td>This lecture and lab course is an introduction to the biological sciences focusing on diversity; organismal interactions with their environment and with other organisms (ecology), the effects humans have had on biological diversity and ecosystems, and efforts to protect species and their habitats (conservation). (GC)</td>
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</tbody>
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### BIOTECHNOLOGY

Division: Science, Engineering, and Mathematics

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</tr>
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<tbody>
<tr>
<td>BIOT-100</td>
<td>Biotechnology and Society</td>
<td>54.00</td>
<td>3.00</td>
<td>Eligible for ENGL-101A</td>
<td>Accepted For Credit: CSU &amp; UC</td>
<td>Introduction to the scientific principles and techniques of molecular biology and biotechnology, including recombinant DNA technology and gene cloning, recombinant protein design, and analysis of biomolecules. Discussion of technical, ethical, and safety concerns presented by medical, agricultural, pharmaceutical, and forensic applications of biotechnology. (GR)</td>
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</tbody>
</table>
BIO-101 Environmental Biotechnology Research Projects
40.50 hrs lecture, 58.50 hrs lab
Units: 3.00
Prerequisite: BIO-105
Accepted For Credit: CSU & UC
This course introduces students to scientific research in the field of biotechnology. It includes literature reviews, research proposal preparation, experimental design, hands-on experimentation, data interpretation and analysis, and presentation of written and oral reports. Students will maintain a professional laboratory notebook, and practice the behavior and skills required in a modern biotechnology lab. Repeatable = 3 times (GR)

BIO-102 Chemical Safety and Hygiene
9.00 hrs lecture, 27.00 hrs lab
Units: 1.00
Cross-referenced Course: CHMT-104A
A course about chemical and lab safety in the workplace with emphasis on hazardous materials and chemical safety; Material Safety Data Sheets; government regulations such as OSHA, FDA, FTC and EPA; appropriate chemical disposal and recycling methodologies; inventory and storage; classification of chemicals according to safety and health hazards; ANSI standards; workers compensation; and quality assurance. In addition, a brief overview of development of Good Laboratory Practice (GLP) and Good Manufacturing Practice (GMP) will also be taught. (GR)

BIO-103 LAB Biotech Summer Bridge
27.00 hrs lecture, 27.00 hrs lab
Units: 2.00
Prerequisite: This course is open only to Learning Alliance for Bioscience program participants from partner high schools. Students must have successfully completed an articulated LAB biotechnology or biochemistry course prior to participating in this Bridge course.

The Learning Alliance for Bioscience (LAB) Biotech Summer Bridge course provides hands-on experience in the biotechnology laboratory for students who have participated in LAB classes at their high school. Students will perform experiments that involve such techniques as bacterial cell culture, DNA extraction and analysis, PCR, gene cloning, and protein extraction and purification. The theme of the course changes each summer, with the focus on such topics as cell culture, drug discovery, biofuels, environmental biotechnology, etc. Repeatable = 3 times (CR)

BIO-104A HPLC
4.50 hrs lecture, 13.50 hrs lab
Units: 0.50
Cross-referenced Course: CHMT-104A
This course trains students in High Pressure Liquid Chromatography, a technique used to separate and analyze chemical mixtures. The course is designed for beginners and intermediate level users in HPLC who want practical laboratory experience. The lectures—supplemented by problem sets, slides, and video presentations—provide the fundamentals needed to understand the techniques and instrumentation involved in this powerful analytical tool. Key topics include basic HPLC instrumentation, detectors, including UV/vis, photo diode array, column selection, qualitative and quantitative analysis, and troubleshooting HPLC systems. (GR)

BIO-104B Gas Chromatography
4.50 hrs lecture, 13.50 hrs lab
Units: 0.50
Cross-referenced Course: CHMT-104B
This course is designed for beginners and intermediate level practitioners who want practical laboratory experience in gas chromatography. This course provides the fundamentals needed to understand the technique and instrumentation involved in this powerful analytical tool and covers basic gas chromatography theory, different columns, phases, qualitative identification, data capture, quantitation, integration, practical applications, and troubleshooting. At the end of the class the student will have mastered the fundamentals of GC, participated in extensive hands-on laboratory sessions, and learned specialized techniques based on the student's specific interests. (GR)

BIO-104C IR and UV/Vis Spectroscopy
4.50 hrs lecture, 13.50 hrs lab
Units: 0.50
Cross-referenced Course: CHMT-104C
Prerequisite: CHEM-106B or CHEM-109
A hands-on, lab-based course designed to introduce infrared spectroscopy, this course outlines the various sample handling methods and the numerous transmission and reflectance methods available for infrared analysis. Lab-based lectures will focus on Fourier Transform Infrared (FT-IR) spectroscopy and its advantages, instrument set-up and parameters, and FT-IR sample analysis methods. The course provides hands-on training for obtaining representative infrared spectra of analytical samples. Data manipulation, spectral analysis, and functional group identification will also be taught. The course will also focus on UV-Vis spectroscopy as a complementary method to IR analysis. The UV-Vis spectroscopy will focus on general principles such as wavelength, absorption, transmittance, standard curves, Beers-Lambert's Law, solvent effects, hypsochromic and bathochromic shifts, chromophores, conjugation, and UV spectral analysis. This course is designed for all levels of UV-Vis/IR instrument users. (GR)

BIO-104D Nuclear Magnetic Resonance Spectroscopy
4.50 hrs lecture, 13.50 hrs lab
Units: 0.50
Cross-referenced Course: CHMT-104D
Prerequisite: CHEM-106B or CHEM-109
An introductory lab-based course geared towards understanding the application of NMR spectroscopy for structural elucidation of compounds in the fields of organic chemistry, physical chemistry, and biochemistry. Topics include basic principles and theory of NMR and the application of chemical shifts, coupling constants, peak splitting, and peak integration to reveal the molecular structure. Labs will include important one-dimensional experiments and their application in assignments and structure determination problems. In addition, the students will get hands-on experience in acquiring NMR spectra using fundamental concepts of instrumentation such as shimming, sample probes, integration, peak and signal parameters, and basic troubleshooting. (GR)
BIOT-105  Introduction to Cell and Molecular Biology
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Advisory: MATH-151 and ENGL-151B
Accepted For Credit: CSU & UC
This course introduces basic laboratory research methods (e.g., measuring volume and mass, preparing solutions, using micropipettes, operating a spectrophotometer), and introductory concepts of biology (e.g., chemistry of life, cell structure and function, and classic and modern genetics) to students who are interested in biotechnology, yet have no science background. Also included are strategies to improve success in the classroom such as notetaking, studying, test taking, and other techniques. Students are introduced to the scientific method; they use computers to prepare written reports; they maintain a professional quality laboratory notebook; and they will become familiar with the appropriate behavior and basic skills required in a modern, biological laboratory. Repeatable = 2 times (GR)

BIOT-106A  Introduction to Bio-Manufacturing Instruments and Measurements
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Advisory: ENGL-151B, MATH-151
This course introduces students to basic laboratory research methods and concepts in biotechnology. Lab skills include the measurement of volumes and masses, as well as the proper use of micropipettiers, pH meters, spectrophotometers, microscopes, and autoclaves. In addition, students master sterile techniques, solution preparation, media preparation, aseptic culture of microbial colonies, protein concentration assay techniques, and bacterial transformation. (GR)

BIOT-106B  Current Lab Methods in Bio-Pharmaceutical Industry and Standard Operating Procedures
54.00 hrs lecture, 108.00 hrs lab
Units: 5.00
Prerequisite: BIOT-106A
Corequisite: BIOT-131D, BIOT-106M
This course trains students for entry-level manufacturing positions in Biotechnology. This course builds upon lab skills learned in BIOT-106A, providing theoretical background and advanced applications. Lab skills include protein purification techniques, dialysis, chromatography, electrophoresis, western blot analysis, serum fractionation, IgG purification, protein A column, ELISA, DNA analysis, and PCR. (GR)

BIOT-106M  Math Applications in Biotechnology
36.00 hrs lecture
Units: 2.00
Corequisite: BIOT-106B, BIOT-131D
This course gives the student a sound foundation in mathematical operations, the metric system, calculations involving solution concentrations and dilutions, solving proportions, and other calculations encountered in biotechnology. Students also learn data management, including graphing, basic statistics, and Excel. (GR)

BIOT-110A1  Introduction to DNA Techniques
9.00 hrs lecture, 27.00 hrs lab
Units: 1.00
Prerequisite: BIOT-105 or BIOL-101A
Accepted For Credit: CSU
Introduction to DNA Techniques is a continuation of laboratory skills in molecular biology introduced in BIOT-105. The course content focuses on classical recombinant DNA techniques such as DNA extraction, restriction analysis, transformation, spectroscopy, and electrophoresis. Completion of this course will prepare students to enroll in BIOT-110A2 and BIOT-110A3. (GR)

BIOT-110A2  PCR I and DNA Sequencing
9.00 hrs lecture, 27.00 hrs lab
Units: 1.00
Prerequisite: BIOT-110A1
Accepted For Credit: CSU
PCR I and DNA Sequencing is a continuation of laboratory skills in molecular biology mastered in BIOT-110A1. The course content focuses on PCR cloning and DNA sequencing using the Sanger sequencing chemistry on an Applied Biosystems 310 Genetic Analyzer. (GC)

BIOT-110A3  Protein Isolation and Assays
9.00 hrs lecture, 27.00 hrs lab
Units: 1.00
Prerequisite: BIOT-110A1
Accepted For Credit: CSU
Protein Isolation and Assays continues the training in molecular biology laboratory techniques begun in BIOT-110A1 and BIOT-110A2. This course emphasizes the isolation and purification of proteins. Techniques include electrophoresis, chromatography (including HPLC & FPLC), and Western Blotting. (GC)

BIOT-111A  Genomic and cDNA Library Construction and Analysis
9.00 hrs lecture, 27.00 hrs lab
Units: 1.00
Prerequisite: BIOL-101A or BIOT-110A1
Accepted For Credit: CSU
This course uses lecture and lab approaches to teach students the theory and practice of lab techniques used to construct, search, and analyze simple genomic and cDNA libraries. Students will learn replica plating, southern and northern blotting, ELISA, and the use of non-radioactive oligonucleotide probes for searching libraries. (GR)
BIOT-111B  PCR Primer Design and Optimization and Reverse Transcription  
9.00 hrs lecture, 27.00 hrs lab  
Units: 1.00  
Prerequisite: BIOT-110A  
Accepted For Credit: CSU  
Students will learn advanced topics in PCR, including BLAST searches and DNA alignment protocols for locating minimal variable sequences to use in constructing PCR primers, principles of primer design, and optimization techniques for PCR reactions. Students will design primers, optimize salt and temperature parameters for PCR, and perform RT-PCR. (GR)

BIOT-112  Introduction to Bioinformatics  
18.00 hrs lecture, 54.00 hrs lab  
Units: 2.00  
Advisory: ENGL-101A and MATH-151  
Accepted For Credit: CSU  
This course is an introduction to computational biology and focuses on the computer analysis of biological sequences and structures. The course includes molecular biology databases, database searching, statistical techniques, genome annotation methods, phylogenetic analysis, protein structure prediction and microarray technology. Repeatable = 2 times (GR)

BIOT-113  GMP/GLP  
18.00 hrs lecture  
Units: 1.00  
Accepted For Credit: CSU  
This course gives an introduction to the concept of GMP (Good Manufacturing Practice) and GLP (Good Laboratory Practice), and their applications in the biotechnological manufacturing of therapeutic products. The course will discuss what is GMP and GLP, the history of GMP/GLP, federal and international regulation for GMP/GLP and how GMP/GLP are being applied in a bio-manufacturing facility. A field trip to a GMP manufacturing plant in the Bay Area is included. (GR)

BIOT-114  Introduction to Plant Biology  
45.00 hrs lecture, 27.00 hrs lab  
Units: 3.00  
Cross-referenced Course: BIOL-114  
Accepted For Credit: CSU & UC  
This course provides a basic introduction to plant biology and careers related to plant biology. Topics include basic plant structure, plant growth and development, genetics, plant molecular biology, plant genetic engineering, plant culture techniques and an introduction to California agriculture. (GR)

BIOT-115A  Mammalian Cell Culture Techniques  
9.00 hrs lecture, 27.00 hrs lab  
Units: 1.00  
Prerequisite: BIOT-105 or BIOL-101A  
Accepted For Credit: CSU  
Through a series of lectures and hands-on laboratory procedures, this course introduces mammalian cell culture methods, including sterile technique, media preparation, and the establishment of primary and secondary cell lines. This course also provides students with the skills and concepts needed to work in today's biotechnology industry. Successful students will qualify to work as technicians in cell culture, manufacturing, and quality control. Repeatable = 1 time (GR)

BIOT-115B  Bioreactor Cell Culture Techniques  
9.00 hrs lecture, 27.00 hrs lab  
Units: 1.00  
Prerequisite: BIOT-115A  
Accepted For Credit: CSU  
This course introduces animal cell culture methods, including use of a bioreactor. Through a series of lectures and hands-on exercises, students will learn the techniques and concepts needed to work in cell culture and biomanufacturing. Repeatable = 1 time (GR)

BIOT-116  Biotech Summer Institute  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Accepted For Credit: CSU  
This course provides hands-on experience in molecular biology concepts and techniques. Students perform a variety of molecular techniques including PCR-based DNA cloning, restriction analysis, host cell transformation, DNA sequencing, forensic DNA fingerprinting, and protein extraction and purification. (GR)

BIOT-117  Immunology  
9.00 hrs lecture, 27.00 hrs lab  
Units: 1.00  
Prerequisite: BIOT-105 or BIOL-101A  
Accepted For Credit: CSU  
This course covers the basics of immunology and the immunological technology relevant to biotechnology. Topics covered include cell culture and protein chemistry relating to immunology, the lymphatic system, cellular immunity, cell typing, humoral immunity and immunoglobulins, making antibodies, ELISA and EIA, affinity chromatography, clinical immunology and autoimmune diseases. (GR)

BIOT-119  Clean Room Operations  
4.50 hrs lecture, 13.50 hrs lab  
Units: 0.50  
Prerequisite: BIOT-105 or BIOL-101A  
Accepted For Credit: CSU  
This course provides background and training for clean room operations in biotechnology. This course discusses clean room classifications, regulations, and procedures. Laboratory exercises simulate working conditions in clean room operations. (GR)

BIOT-120A  Introduction to SEM Technology  
9.00 hrs lecture  
Units: 0.50  
Advisory: BIOL-130  
Accepted For Credit: CSU  
Students will learn theory and applications of Scanning Electron Microscopy in biological and non-biological disciplines including historical development of electron microscopes and current high technology applications of Scanning Electron Microscopes. (GR)

BIOT-120B  SEM – Biological Applications and Techniques  
4.50 hrs lecture, 13.50 hrs lab  
Units: 0.50  
Prerequisite: BIOT-120A  
Accepted For Credit: CSU  
Students will learn theory, operation, and applications of Scanning Electron Microscopy in biological sciences including techniques for biological specimen preparation. Repeatable = 2 times (GR)

BIOT-120C  SEM – Applications in Physical Science and Engineering  
4.50 hrs lecture, 13.50 hrs lab  
Units: 0.50  
Prerequisite: BIOT-120A  
Accepted For Credit: CSU  
Students will learn theory, operation, and applications of Scanning Electron Microscopy in physical sciences. The course will demonstrate the use of microscopic imaging and compositional detectors for problem solving in material sciences, forensics and environmental sciences. Repeatable = 2 times (GR)
BIOT-121 Biotechnology Careers
18.00 hrs lecture
Units: 1.00
Advisory: Eligible for ENGL-101A and MATH-151
Accepted For Credit: CSU
This course is designed to offer an in-depth view of the emerging careers in Biotechnology including agricultural, environmental, forensics, industrial, pharmaceutical, and medical biotechnology careers. Students will have an opportunity to meet many professionals in various biotechnology positions and to discuss the range of career options available and educational training required for each career. Repeatable = 1 time (GR)

BIOT-122 Introduction to Nanotechnology
54.00 hrs lecture
Units: 3.00
Accepted For Credit: CSU
Nanotechnology explores exciting potential applications of science pertaining to tiny structures. Students will be introduced to fundamentals of biology, chemistry, and engineering. (GC)

BIOT-123 Writing SOPs
9.00 hrs lecture
Units: 0.50
Prerequisite: BIOT-105 or BIOL-101A
Advisory: ENGL-101A
Accepted For Credit: CSU
This is a short training course on the writing of Standard Operating Procedures (SOPs) for biotechnology. The course investigates the rational for writing SOPs, and discusses the standards and regulations that need to be taken into account in planning SOPs. The course also covers the procedures, formats, and writing styles employed in writing, implementing, and evaluating SOPs. (GR)

BIOT-131 Computing Concepts in Biotechnology
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Cross-referenced Course: CS-131
Accepted For Credit: CSU
This course introduces the basic computing concepts, the most commonly used computer algorithms, and programming languages in biotechnology. (GC)

BIOT-131D Review of Biotechnology Concepts
18.00 hrs lecture
Units: 1.00
Corequisite: BIOT-106A and/or BIOT-106B and/or BIOT-106M
This course reviews concepts from selected biotechnology courses. This course also introduces study techniques. Students’ questions are answered and difficult topics are clarified; extra drill is provided where needed. (GR)

BIOT-131L LAB Learning Community
18.00 hrs lecture
Units: 1.00
Advisory: Student has taken LAB biotechnology or biochemistry class in high school
Accepted For Credit: CSU
This course is a learning community designed to support the educational goals of students studying biotechnology or other STEM fields, especially those students who have participated in Learning Alliance for Bioscience biotechnology and/or biochemistry courses (or equivalent) in high school. Each semester the course will cover new content and concepts according to student interests and needs, and new developments in the field of biotechnology. Repeatable = 3 times (CR)

BIOT-132L LAB Learning Community, Mentoring Level
18.00 hrs lecture
Units: 1.00
Prerequisite: BIOT-131L
Accepted For Credit: CSU
This course is the second level of a learning community designed to support the educational goals of students studying biotechnology or other STEM fields, especially those students who have participated in Learning Alliance for Bioscience biotechnology and/or biochemistry courses (or equivalent) in high school. Students who have completed three semesters of the BIOT-131L Learning Community course are eligible to take this mentor-level class. Each semester the course will cover new content and concepts according to student interests and needs, and new developments in the field of biotechnology. Repeatable = 3 times (CR)

BIOT-133 Introduction to SAS Programming
54.00 hrs lecture
Units: 3.00
Cross-referenced Course: CS-133
Accepted For Credit: CSU
The SAS system has become the international standard for data management, manipulation, storage, retrieval, and statistical analysis. This course offers an introduction to the SAS software by using core elements of the SAS system programming language and procedures. (GR)

BIOT-133A Data Analysis Using SAS
54.00 hrs lecture
Units: 3.00
Cross-referenced Course: CS-133A
Prerequisite: BIOT-133 or CS-133
Accepted For Credit: CSU
This course focuses on the following key areas: statistical inference, analysis of variance, multiple regression, categorical data analysis, and logistic regression. (GC)

BIOT-141B SAS Graphing and ODS
27.00 hrs lecture, 27.00 hrs lab
Units: 2.00
Cross-referenced Course: CS-141B
Advisory: BIOT-133 or CS-133
Accepted For Credit: CSU
This course introduces SAS/GRAPH and ODS. Learn how to design, construct, and display customized graphs quickly and efficiently. Learn how to create a data set from the results of most SAS procedures and build custom reports. Repeatable = 1 time (GC)

BIOT-143 Advanced SAS Programming
54.00 hrs lecture
Units: 3.00
Cross-referenced Course: CS-143
Advisory: BIOT-133/CS-133 or some experience in SAS programming
Accepted For Credit: CSU
This course provides students with a basic understanding of macro programming and SQL procedure in SAS software. SQL and macro programming can provide more flexibility and power in data management and data analysis. (GR)
ANNOUNCEMENT OF COURSES

BROADCASTING

Division: Arts and Social Sciences

BRDC-110  Digital Video for Web and DVD
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Cross-referenced Course: MM-110
Advisory: MM-102A
Accepted For Credit: CSU

Students learn techniques to shoot, edit, and set the correct parameters to upload short videos to the Internet or create a DVD. Training in the use of digital cameras, microphones, lights, and video editing software. Topics include camera shots, transitions, composition, video file formats, compression, special effects, and producing video for You Tube, Web sites, and DVD. Repeatable = 2 times (GR)

BRDC-120  Introduction to Electronic Media
36.00 hrs lecture
Units: 2.00
Accepted For Credit: CSU

This course introduces the history, structure, function, economics, content, and evolution of radio, television, film, and the Internet, including traditional formats and emerging electronic media delivery systems. The social, political, regulatory, ethical, and occupational impact of the electronic media are studied. (GR)

BRDC-123A  Radio Operations I
18.00 hrs lecture, 108.00 hrs lab
Units: 3.00
Accepted For Credit: CSU

This course is an introduction to the technical operation of a radio broadcast facility. Applied concepts include preparing and producing material for broadcast, gathering and delivering local news on the air, operation of KOHL Radio by FCC standards, and creating an effective audition tape. Repeatable = 1 time (GR)

BRDC-123B  Radio Operations II
18.00 hrs lecture, 108.00 hrs lab
Units: 3.00
Prerequisite: BRDC-123A
Accepted For Credit: CSU

This course allows students to refine basic skills introduced in BRDC-123A. Advanced digital and analog production techniques are introduced. Additional areas of concentration include management and operations software systems, aircheck analysis, market overviews, and creating an effective employment package. Repeatable = 1 time (GR)

BRDC-124  Broadcast Internships
180.00 hrs lab
Units: 3.00
Prerequisite: BRDC-123A
Accepted For Credit: CSU

This course is for students who will intern at Bay Area broadcast stations, learning various aspects of the broadcasting business. Repeatable = 3 times (GR)

BRDC-127A  Radio Broadcast Lab
54.00 hrs lab
Units: 1.00
Prerequisite: BRDC-123B
Accepted For Credit: CSU

This course focuses on laboratory practice utilizing knowledge and techniques gained in the radio programming and production courses. KOHL Radio serves as the operational lab. Repeatable = 3 times (GR)

BRDC-127B  Radio Broadcast Lab
54.00 hrs lab
Units: 1.00
Prerequisite: BRDC-123B
Accepted For Credit: CSU

This course builds upon knowledge and techniques gained in BRDC-123A, BRDC-123B, and BRDC-127A. KOHL Radio serves as the operational lab. Repeatable = 3 times (GR)

BRDC-127C  Radio Broadcast Lab
54.00 hrs lab
Units: 1.00
Prerequisite: BRDC-123B
Accepted For Credit: CSU

This course builds upon knowledge and techniques gained in BRDC-127B with emphasis on advanced content and on-air listener interaction. KOHL radio serves as the operational lab. Repeatable = 3 times (GR)

BRDC-127D  Radio Broadcast Lab
54.00 hrs lab
Units: 1.00
Prerequisite: BRDC-123B
Accepted For Credit: CSU

This course builds upon knowledge and techniques gained in BRDC-127C with emphasis on live, on location broadcast situations. KOHL Radio serves as the operational lab. Repeatable = 3 times (GR)

BRDC-128  Radio Programming and Marketing
36.00 hrs lecture
Units: 2.00
Accepted For Credit: CSU

This course provides an overview of radio programming methods, strategies, promotion and evaluation techniques, and outlines the responsibilities of the professional radio program director. Repeatable = 1 time (GR)

BRDC-129  Digital Radio Studio Systems
18.00 hrs lecture, 108.00 hrs lab
Units: 3.00
Prerequisite: BRDC-123A
Accepted For Credit: CSU

Students taking this course are introduced to advanced operational techniques of digital radio studio systems. Lab assignments are completed in the KOHL studios using the RCS Master Control platform. Repeatable = 3 times (GR)

BRDC-130  Broadcast Announcing
36.00 hrs lecture, 54.00 hrs lab
Units: 3.00
Accepted For Credit: CSU

Course concentration is on projection of personality, voice control, pronunciation, and related skills necessary for communication of ideas and information via broadcast. Students will learn important microphone techniques and put them to use under simulated broadcast circumstances. Repeatable = 1 time (GR)

BRDC-132  Studio Recording
54.00 hrs lecture, 18.00 hrs lab
Units: 3.00
Cross-referenced Course: MUS-113
Accepted For Credit: CSU

This course is an introduction to the recording studio. The course follows the path of audio signals through the microphone, mixer, signal processors, digital audio workstation (DAW), and monitoring stations. The course explores various types of microphones, the functions of virtual mixing boards, the characteristics of plug-in signal processors, and recording techniques. (GR)
BRDC-134  Final Cut Pro Editing
36.00 hrs lecture, 54.00 hrs lab
Units: 3.00
Accepted For Credit: CSU
Students learn the basics of editing a television package in the
digital medium. Students will be trained in the use of Final Cut
Pro non-linear editing system under the guidance of broadcast
industry professionals. The course examines how cutting edge
non-linear editing technology has its roots in film editing,
exploring similarities between the two, and contrasts both to
video editing. The course covers the history of video storage
media from 2" AMPEX tape through BETA, current formats
including DV and HD. Students also develop storytelling skills.
Repeatable = 1 time (GR)

BRDC-135  Final Cut Pro Suite-Master
36.00 hrs lecture, 54.00 hrs lab
Units: 3.00
Accepted For Credit: CSU
Students learn advanced techniques used in commercial film
and video production. Students develop the ability to create
polished transitions, edit multi-camera projects, work with
nested sequences, the basics of keyframing and composite
modes and how to use noise reduction in Soundtrack Pro to
normalize audio tracks. Repeatable = 1 time (GR)

BRDC-136  Digital Video and Lighting
36.00 hrs lecture, 54.00 hrs lab
Units: 3.00
Accepted For Credit: CSU
The basics of shooting a story using professional video
cameras under the guidance of broadcast industry
professionals. Course covers history of news recording from
film to videotape and current memory stick formats. Students
develop skills in video production, news gathering, lighting,
and storytelling. Repeatable = 1 time (GR)

BRDC-137  Video Field Production
36.00 hrs lecture, 54.00 hrs lab
Units: 3.00
Prerequisite: BRDC-136
Accepted For Credit: CSU
Students learn advanced techniques of shooting video for
commercial television news. Repeatable = 1 time (GR)

BRDC-138  AVID Editing
36.00 hrs lecture, 54.00 hrs lab
Units: 3.00
Accepted For Credit: CSU
Students learn the basics of editing a television story using
AVID non-linear editing system. Students also develop
storytelling skills. Repeatable = 1 time (GC)

BRDC-141  Live TV Newscast
36.00 hrs lecture, 54.00 hrs lab
Units: 3.00
Accepted For Credit: CSU
Students write, report, anchor, shoot, and edit a weekly
newscast which is then broadcast live on local cable and the
Internet. Repeatable = 2 times (GC)

BRDC-142  Live TV Studio Production
36.00 hrs lecture, 54.00 hrs lab
Units: 3.00
Accepted For Credit: CSU
Students write, report, shoot, and edit feature stories and
human-interest stories for broadcast on the college’s newscast,
which are then broadcast live on local cable and the Internet.
Repeatable = 1 time (GC)

BRDC-144  Sports Broadcasting
36.00 hrs lecture, 72.00 hrs lab
Units: 3.00
Advisory: BRDC-136, BRDC-138, BRDC-141, BRDC-142,
BRDC-148, or BRDC-152
Accepted For Credit: CSU
Train to do on air play-by-play or be part of the behind-the-
scenes production crew on live sports highlights shows and the
live broadcast of Ohlone College sporting events. Repeatable =
2 times (GC)

BRDC-148  Directing Live Television
36.00 hrs lecture, 54.00 hrs lab
Units: 3.00
Prerequisite: BRDC-141 or BRDC-142
Accepted For Credit: CSU
Students learn to run studio cameras, teleprompter, switcher,
audio board, and direct a live broadcast. Students participate in
a live weekly newscast. Repeatable = 2 times (GC)

BRDC-152  Film and Video Production
54.00 hrs lecture, 72.00 hrs lab
Units: 4.00
Advisory: BRDC-134, BRDC-135, BRDC-138, BRDC-144
Accepted For Credit: CSU
Advanced film and video production techniques, with
emphasis on lighting and short film production. Repeatable =
3 times (GC)

BRDC-155  Mass Media and Society
54.00 hrs lecture
Units: 3.00
Cross-referenced Course: JOUR-155
Advice: Eligible for ENGL-101A
Accepted For Credit: CSU & UC
We swim in an ocean of media. Our thoughts, beliefs, life
choices, jobs, government, and shopping decisions are all
influenced by the media. Most of us complain about it, but we
wouldn’t turn the media off, even if we could. Yet we don’t
know much about it. Who decides what messages get sent?
What do the senders want? How do we process the messages?
How does the technology work? Your media exposure will
continue for the rest of your life. This class aims to make you
a more informed, critical consumer. (GR)

BUSINESS ADMINISTRATION
Division: Arts and Social Sciences

BA-101A  Financial Accounting
90.00 hrs lecture
Units: 5.00
Advice: Eligible for ENGL-151B
Accepted For Credit: CSU & UC
This course introduces accounting theory, procedures, and
practices relating to financial accounting. (GR)

BA-101B  Managerial Accounting
90.00 hrs lecture
Units: 5.00
Prerequisite: BA-101A
Accepted For Credit: CSU & UC
This course is an introduction to managerial accounting
including the analysis and interpretation of accounting data to
aid management. (GR)
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BA-102A</td>
<td>Principles of Economics-Macroeconomics</td>
<td>3.00</td>
<td>Introduction to Macroeconomics. The topics explored include supply and demand, government spending, taxation, business cycles, fiscal policy, monetary policy, money and banking system, inflation, unemployment, national income, and international economics. (GR)</td>
</tr>
<tr>
<td>BA-102B</td>
<td>Principles of Economics-Microeconomics</td>
<td>3.00</td>
<td>Introduction to Microeconomics. The topics explored include demand, supply, market structure, pricing policies, labor market, elasticity and its application, public goods and common resources, and environmental policy. (GR)</td>
</tr>
<tr>
<td>BA-104</td>
<td>Computer Applications in Accounting</td>
<td>3.00</td>
<td>This course covers the application of accounting theory on the computer using spreadsheet software. (GR)</td>
</tr>
<tr>
<td>BA-105</td>
<td>Income Tax Principles</td>
<td>4.00</td>
<td>This course provides an analysis of the principles, procedures, and terminology of income taxes on individual taxpayers. (GC)</td>
</tr>
<tr>
<td>BA-109B</td>
<td>Computerized Accounting for Small Business</td>
<td>1.50</td>
<td>This course is designed to meet the accounting needs of a small business. A widely-used software package (such as QuickBooks) will be presented. (GC)</td>
</tr>
<tr>
<td>BA-115</td>
<td>Career Communication</td>
<td>3.00</td>
<td>Develop vital communication skills for global and diverse professional environments including presentational skills, interviewing, meeting management, small group communication, and leadership skills. (GR)</td>
</tr>
<tr>
<td>BA-116</td>
<td>Business English and Communication</td>
<td>4.00</td>
<td>This course reviews the fundamentals of English grammar, punctuation, and sentence structure from a business approach. Writing skills for clear and effective business communication are developed through letters and reports. (GC)</td>
</tr>
<tr>
<td>BA-121A</td>
<td>Developing Your Business Plan</td>
<td>0.50</td>
<td>This is a class designed for students considering starting their own businesses. All major elements of a Business Plan will be covered: financial statements, marketing, and competitive strategies. (GC)</td>
</tr>
<tr>
<td>BA-121B</td>
<td>Legal Aspects of Small Business</td>
<td>0.50</td>
<td>This course is designed for students interested in establishing a business and needing information about the legal issues involved. The information is very practical and is presented in a clear, concise manner. Legal aspects such as forms of ownership, licensing, and taxes will be covered. (GC)</td>
</tr>
<tr>
<td>BA-123</td>
<td>Math for Accounting and Business</td>
<td>3.00</td>
<td>This course focuses on methods of problem interpretation and solving of common business calculations. Problems such as taxes, interest, depreciation, stocks, and insurance are covered by means of lecture and individual operations of calculators and computers. (GC)</td>
</tr>
<tr>
<td>BA-125</td>
<td>Introduction to Business</td>
<td>3.00</td>
<td>This course examines the purposes, organization, and major activities of business operations. Emphasis is placed on understanding relationships of business, government, and the consumer in a global economy. (GC)</td>
</tr>
<tr>
<td>BA-126</td>
<td>Introduction to Marketing</td>
<td>3.00</td>
<td>This course explores all fundamental aspects of marketing and the role marketing plays in the overall context of business. How markets develop, market segmentation and target marketing, the 4Ps of marketing (product, price, promotion, placement), and marketing theory and practice are examined in detail. (GC)</td>
</tr>
<tr>
<td>BA-136</td>
<td>Introduction to International Business</td>
<td>3.00</td>
<td>This course presents the latest theories and concepts of international business while highlighting the leading role culture plays in global commerce. (GC)</td>
</tr>
<tr>
<td>BA-137</td>
<td>Introduction to International Marketing</td>
<td>3.00</td>
<td>Survey course that covers the essential elements of international marketing, beginning with its definition and concluding with international marketing strategy implementation. (GC)</td>
</tr>
</tbody>
</table>
BA-139  Psychology in the Workplace  
18.00 hrs lecture  
Units: 1.00  
Accepted For Credit: CSU  
This course will identify the unique cultural and structural challenges involved in exporting services and the strategies and tools to overcome these challenges. Students will also learn about service export market entry strategies, most promising service exports, and how to identify suitable export markets. (GR)

BA-140  Global Business Immersion  
36.00 hrs lecture  
Units: 2.00  
Advisory: ENGL-151A  
Accepted For Credit: CSU  
This course will revolve around a three-week study abroad program based in a particular country, focusing on global business in that country. Students will have an opportunity to explore directly the widest possible variation of business environments and practices. The course will also review the cultural, historical, and political environments which affect the business practices in that country. Repeatable = 2 times (GC)

BA-141A  Business Law  
54.00 hrs lecture  
Units: 3.00  
Advisory: Eligible for ENGL-101A  
Accepted For Credit: CSU  
This course is an introduction to law applicable to business including the legal environment of business, ethics, sustainability, contracts, agency, and sales law. This course also satisfies the real estate law requirement for the real estate certificate. (GC)

BA-141C  An Introduction to International Law  
54.00 hrs lecture  
Units: 3.00  
Advisory: ENGL-101A  
Accepted For Credit: CSU  
This course is an introduction to international business law, featuring trade (import and export), licensing agreements for the transfer and protection of patents, copyrights, trademarks and intellectual property (including franchising), and active foreign investment through mergers, acquisitions, and joint ventures. (GC)

BA-142  International Economics  
54.00 hrs lecture  
Units: 3.00  
Advisory: BA-102A, BA-102B  
Accepted For Credit: CSU  
Students study theories of the causes and effects underlying international economies with a focus on international trade, international finance, and the study of governmental policies that alter the pattern of trade between nations. (GR)

BA-143  Sports Marketing  
54.00 hrs lecture  
Units: 3.00  
Cross-referenced Course: KIN-243  
Accepted For Credit: CSU  
This course examines the application of the principles of promotion, sponsorship, sales, revenue, and marketing to the sport and fitness industry. The areas covered will include high school/collegiate athletics, professional sports, and the fitness club industry. (GC)

BA-144  Sports Management  
54.00 hrs lecture  
Units: 3.00  
Cross-referenced Course: KIN-244  
Accepted For Credit: CSU  
This course provides an overview of professional sport management in North America. The political, historical, social, economic, and cultural impacts of sport management are explored. Topics will include team management, organizational administration, legal issues, public relations, and facility management. Students will become familiar with career opportunities in the sports management field. (GR)

BA-160A  Computer Graphics I  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Cross-referenced Course: ART-160A, GA-160A, CS-160A  
Accepted For Credit: CSU & UC  
This course is an introduction to microcomputers and to the creation of computer-generated graphics. This course examines the variety of software/hardware tools and techniques available for the production of computer-made imagery. The emphasis is on hard-copy production using printers, plotters, and other reproduction methods. This course also covers design principles, business graphics, and elementary programming principles. Repeatable = 3 times (GC)

BA-160B  Computer Graphics II  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Cross-referenced Course: ART-160B, GA-160B, CS-160B  
Prerequisite: ART-160A, BA-160A, GA-160A, CS-160A  
Accepted For Credit: CSU & UC  
This course is a continuation of BA-160A. The emphasis in this course is on developing intermediate and advanced skills needed to operate a computer graphics work station. The students complete projects of their choice using more complex paint and CAD software, printers, and plotters. Repeatable = 1 time (GC)

BA-192  Service Learning Internship  
72.00 hrs lab  
Units: 1.00  
Accepted For Credit: CSU  
Service learning is a teaching and learning method that integrates community service with academic coursework as it focuses on critical, reflective thinking. Repeatable = 2 times (GC)

BA-195A1  Work Experience Education – Vocational  
75.00 hrs lab  
Units: 1.00  
Accepted For Credit: CSU  
Work experience education for students employed in jobs directly related to a major. Units received are based on hours worked. (GC)
**BUSINESS SUPERVISION MANAGEMENT**

Division: Business, Technology, and Learning Resources

**BSM-101** Fundamentals of Supervision
54.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-151B
Accepted For Credit: CSU
This course provides an overview of supervisory principles and practices from defining the supervisor’s role to the challenges of ensuring effective employee communications. Topics also include staffing, professional development, workplace safety, and conflict resolution. (GC)

**BSM-102** Interpersonal Relations in the Workplace
54.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-151B
Accepted For Credit: CSU
This course covers interpersonal communication, employee-employer relations, cultural awareness, conflict resolution, stress management, and team development. (GC)

**BSM-103** Management of Human Resources
54.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-151B
Accepted For Credit: CSU
This course covers the principles and practices of human resources for first line and above managerial personnel: employment/industrial relations, equal employment opportunity, sexual harassment, training and development, wage/salary/benefit administration, job performance reviews, and safety/accident prevention. (GR)

**BSM-105** Operations Management
54.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-151B
Accepted For Credit: CSU
This course covers the principles of operations management: globalization, forecasting, materials/production/project management, and total quality management principles and practices. (GC)

**BSM-106** Communication for Supervisors
54.00 hrs lecture
Units: 3.00
Accepted For Credit: CSU
This course covers the principles and practices for the techniques of communication in the workplace including active listening, intercultural communication, verbal and non-verbal communication, conducting meetings, and effective presentations. (GC)

**BSM-108** Leadership in Organizations
54.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-151B
Accepted For Credit: CSU
This course provides an overview of principles of leadership, supervision, power and politics in the workplace; team decision-making/problem solving; motivating employees; coaching; social responsibility and business ethics. (GC)

**BSM-195A1** Work Experience Education – Vocational
75.00 hrs lab
Units: 1.00
Accepted For Credit: CSU
Work experience education for students employed in jobs directly related to a major. Units received are based on hours worked. (GC)

**BSM-195A2** Work Experience Education – Vocational
150.00 hrs lab
Units: 2.00
Accepted For Credit: CSU
Work experience education for students employed in a job directly related to a major. Units received are based on hours worked. (GC)

**BSM-195A3** Work Experience Education – Vocational
225.00 hrs lab
Units: 3.00
Accepted For Credit: CSU
Work experience education for students employed in jobs directly related to a major. Units received are based on hours worked. (GC)

**BSM-195A4** Work Experience Education – Vocational
300.00 hrs lab
Units: 4.00
Accepted For Credit: CSU
Work experience education for students employed in jobs directly related to a major. Units received are based on hours worked. (GC)

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**Did you know???

34% of Ohlone students are Asian, 25% are Caucasian, 18% are Hispanic, 8% are Filipino, and 5% are African-American.


CHMT-102 Chemical Safety and Hygiene
9.00 hrs lecture, 27.00 hrs lab
Units: 1.00
Cross-referenced Course: BIOT-102
A course about chemical and lab safety in the workplace with emphasis on hazardous materials and chemical safety; Material Safety Data Sheets; government regulations such as OSHA, FDA, FTC and EPA; appropriate chemical disposal and recycling methodologies; inventory and storage; classification of chemicals according to safety and health hazards; ANSI standards; workers compensation; and quality assurance. In addition, a brief overview of development of Good Laboratory Practice (GLP) and Good Manufacturing Practice (GMP) will also be taught. (GR)

CHMT-103A Chemical Technology I
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Advisory: ENGL-151B, MATH-151
This is a basic course that covers chemical principles, plus career and educational aspects of chemical technology. Topics will cover chemical nomenclature, atoms and molecules and their reactions, chemical and physical properties of materials, and chemical principles. In addition, students will get hands-on training in sample preparation, keeping lab notebooks, industry-based data processing, operation of basic lab equipment, and bioanalysis. This course will also cover employment opportunities, job functions, and case studies of workplace activities with hands-on industry-based labs. (GR)

CHMT-104A HPLC
4.50 hrs lecture, 13.50 hrs lab
Units: 0.50
Cross-referenced Course: BIOT-104A
This course trains students in High Pressure Liquid Chromatography, a technique used to separate and analyze chemical mixtures. The course is designed for beginners and intermediate level users in HPLC who want practical laboratory experience. The lectures—supplemented by problem sets, slides, and video presentations—provide the fundamentals needed to understand the techniques and instrumentation involved in this powerful analytical tool. Key topics include basic HPLC instrumentation, detectors, including UV/vis, photo diode array, column selection, qualitative and quantitative analysis and troubleshooting HPLC systems. (GR)

CHMT-104B Gas Chromatography
4.50 hrs lecture, 13.50 hrs lab
Units: 0.50
Cross-referenced Course: BIOT-104B
This course is designed for beginners and intermediate level practitioners who want practical laboratory experience in gas chromatography. This course provides the fundamentals needed to understand the technique and instrumentation involved in this powerful analytical tool and covers basic gas chromatography theory, different columns, phases, qualitative identification, data capture, quantitation, integration, practical applications, and troubleshooting. At the end of the class the student will have mastered the fundamentals of GC, participated in extensive hands-on laboratory sessions, and learned specialized techniques based on the student's specific interests. (GR)

CHMT-104C IR and UV/Vis Spectroscopy
4.50 hrs lecture, 13.50 hrs lab
Units: 0.50
Cross-referenced Course: BIOT-104C
Prerequisite: CHEM-106B or CHEM-109
A hands-on, lab-based course designed to introduce infrared spectroscopy, this course outlines the various sample handling methods and the numerous transmission and reflectance methods available for infrared analysis. Lab-based lectures will focus on Fourier Transform Infrared (FT-IR) spectroscopy and its advantages, instrument set-up and parameters, and FT-IR sample analysis methods. The course provides hands-on training for obtaining representative infrared spectra of analytical samples. Data manipulation, spectral analysis, and functional group identification will also be taught. The course will also focus on UV-Vis spectroscopy as a complementary method to IR analysis. The UV-Vis spectroscopy will focus on general principles such as wavelength, absorption, transmittance, standard curves, Beers-Lambert's Law, solvent effects, hypsochromic and bathochromic shifts, chromophores, conjugation, and UV spectral analysis. This course is designed for all levels of UV-Vis/IR instrument users. (GR)

CHMT-104D Nuclear Magnetic Resonance Spectroscopy
4.50 hrs lecture, 13.50 hrs lab
Units: 0.50
Cross-referenced Course: BIOT-104D
Prerequisite: CHEM-106B or CHEM-109
An introductory lab-based course geared towards understanding the application of NMR spectroscopy for structural elucidation of compounds in the fields of organic chemistry, physical chemistry, and biochemistry. Topics include basic principles and theory of NMR and the application of chemical shifts, coupling constants, peak splitting, and peak integration to reveal the molecular structure. Labs will include important one-dimensional experiments and their application in assignments and structure determination problems. In addition, the students will get hands-on experience in acquiring NMR spectra using fundamental concepts of instrumentation such as shimming, sample probes, integration, peak and signal parameters, and basic troubleshooting. (GR)
CHEMISTRY
Division: Science, Engineering, and Mathematics

CHEM-101A General Chemistry
54.00 hrs lecture, 108.00 hrs lab
Units: 5.00
Prerequisite: CHEM-102 and MATH-152, or satisfactory performance on the Chemistry Placement Test at Ohlone College
Advisory: CAOT-150
Accepted For Credit: CSU & UC
CHEM-101A is a general college-level inorganic chemistry course designed for students majoring in biology, chemistry, engineering, pre-med, and other fields demanding rigorous scientific preparation. Topics covered include atomic theory, stoichiometry, chemical reactions, introductory thermochemistry, theories of bonding, and the properties of solids, liquids, gases, and solutions. (GR) C-ID CHEM 110

CHEM-101B General Chemistry
54.00 hrs lecture, 108.00 hrs lab
Units: 5.00
Prerequisite: CHEM-101A
Accepted For Credit: CSU & UC
Chemistry 101B continues the study of chemistry taught in Chemistry 101A. Theory and mathematical applications are emphasized. This course is designed for science-oriented majors including biology, chemistry, engineering, and pre-professional health. Topics include kinetics, equilibrium, acids and bases, solubility, thermodynamics, electrochemistry, nuclear chemistry, properties of organic molecules, acids and bases, buffers, proteins, and compounds containing transition elements, organic chemistry, and coordination compounds. This course provides students with the necessary foundation for Organic Chemistry, CHEM-112A. (GR)

CHEM-102 Preparation for General Chemistry
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Prerequisite: MATH-151
Accepted For Credit: CSU & UC
This course is a preparatory chemistry course covering the fundamentals of modern inorganic chemistry with emphasis on problem solving and mathematical calculations. Topics include classification of matter, atomic and molecular structure, chemical formula and nomenclature, chemical equations and stoichiometry, thermochemistry, and gas laws and solutions. Chemistry 102 is intended primarily as a preparation for students planning to take college level Chemistry 101A. This course is recommended for students who have been away from high school chemistry for more than two years or those whose previous chemistry background is inadequate for Chemistry 101A. (GR)

CHEM-108 Survey of Chemistry
54.00 hrs lecture
Units: 3.00
Accepted For Credit: CSU & UC
This is a general education, non-lab course about the chemistry of everyday things. Some of the topics considered are food, medicine, petroleum, pollution, plastics, cosmetics, and poisons. The course gives information about atoms and structure to help students interpret everyday occurrences from a molecular point of view. Concepts, not calculations, are emphasized. The course is intended for non-science majors wishing to satisfy the General Education science requirement for CSU and UC transfer institutions. (GC)

CHEM-109 Biochemistry for Health Science and Biotechnology
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Prerequisite: MATH-151
Accepted For Credit: CSU & UC
This course covers the basic concepts of inorganic and organic chemistry and biochemistry as they apply to the human body. It is open to all students; no previous chemistry required. This course satisfies the requirements of nursing, biotechnology, and related majors that require one semester of chemistry. Students preparing to enroll in CHEM-101A should enroll in CHEM-102. (GR)

CHEM-112A Organic Chemistry
54.00 hrs lecture, 108.00 hrs lab
Units: 5.00
Prerequisite: CHEM-101B
Accepted For Credit: CSU & UC
CHEM-112A is the first semester of organic chemistry for science-oriented, pre-professional health, and pre-engineering students. This course includes a study of important organic molecules found in living systems and man-made molecules. This course is designed primarily for students who require a full year of organic chemistry, including multistep synthesis and heterocyclic compounds and advanced spectroscopy. (GR)

CHEM-112B Organic Chemistry
54.00 hrs lecture, 108.00 hrs lab
Units: 5.00
Prerequisite: CHEM-112A
Accepted For Credit: CSU & UC
CHEM-112B is the second semester of organic chemistry for science-oriented, pre-professional health, and pre-engineering students. This course includes a study of important organic molecules found in living systems and man-made molecules. This course is designed primarily for students who require a full year of organic chemistry, including nomenclature, multistep synthesis, mechanisms and heterocyclic compounds and spectroscopy. (GR)

CHEM-131D Review of Chemistry Concepts
18.00 hrs lecture
Units: 1.00
This course is designed to review the content in selected Chemistry course(s). It is an introduction to study techniques and more in-depth discussions of chemistry principles and problem solving. Repeatable = 3 times (CR)

CHEM-190 Scientific Research Methodology
9.00 hrs lecture, 2700 hrs lab
Units: 1.00
Prerequisite: Consent of instructor
Advisory: MATH-188; major in science, technology, engineering, or math
This course introduces students to scientific research methods. It includes hypothesis writing, variable identification, experimental design, literature reviews, data interpretation and analysis, research proposal preparation, and presentation of scientific papers. (GR)
CHICANO STUDIES

Division: Arts and Social Sciences

CHS-101 Chicano Culture I
54.00 hrs lecture
Units: 3.00
Cross-referenced Course: SOC-106
Advisory: Eligible for ENGL-101A
Accepted For Credit: CSU & UC
This course examines the social, cultural, political, and economic heritage of the Chicanos and their contribution to American society. (GR)

CHS-102A Chicana/o History I
54.00 hrs lecture
Units: 3.00
Cross-referenced Course: HIST-102A
Advisory: ENGL-101A
Accepted For Credit: CSU
Covers the history of Chicanas and Chicanos from Pre-Colombian times to 1850. Emphasizes the political, economic, and social influences of Pre-Columbian America, Spain, Mexico, and the United States. Includes a study of the United States Constitution. (GR)

CHS-102B Chicana/o History II
54.00 hrs lecture
Units: 3.00
Cross-referenced Course: HIST-102B
Advisory: ENGL-101A
Accepted For Credit: CSU
Covers the history of the Mexican-American experience from 1850 to the present day. Emphasizes the political, economic, and social experiences of the Mexican American people under the influences of Mexico and the United States. Includes a study of the Constitution of California. (GR)

CHS-106A Chicano Literature
54.00 hrs lecture
Units: 3.00
Accepted For Credit: CSU & UC
This course offers an introduction to writing by Chicanos. Through performing in-depth studies of certain authors, the students will view literature as a reflection of Chicano life. (GC)

CHS-109 Barrio Fieldwork
18.00 hrs lecture, 54.00 hrs lab
Units: 2.00
Accepted For Credit: CSU
Observation of selected barrios, institutions, agencies. (GR)

CHS-112 Contemporary Issues of Chicanas
54.00 hrs lecture
Units: 3.00
Prerequisite: ENGL-163; eligible for ENGL-101A
Accepted For Credit: CSU & UC
This course is an examination of the historical, social-economic, and political conditions which have shaped the lives of contemporary Chicanas in the United States. It will explore cultural patterns underlying race, class, and gender-based strategies and inequities as basic elements of contemporary social structure. (GC)

CHINESE

Division: Language and Communication

CHIN-101A Elementary Mandarin Chinese I
90.00 hrs lecture, 18.00 hrs lab
Units: 5.00
Accepted For Credit: CSU & UC
This course is an introduction to modern standard Chinese language (Mandarin). Students will acquire listening, speaking, reading, and writing skills in or to communicate effectively in simple Chinese for common everyday purposes. This course teaches the Chinese phonetic system, the structures of Chinese characters, the basic Chinese grammatical concepts, and aspects of Chinese culture in relation to the topic of the concurrent lesson. (GR)

CHIN-101B Elementary Mandarin Chinese II
90.00 hrs lecture, 18.00 hrs lab
Units: 5.00
Prerequisite: CHIN-101A or two years of high school Chinese
Accepted For Credit: CSU & UC
This course is a continuation of CHIN-101A. Students will continue to acquire listening, speaking, reading and writing skills in Chinese (Mandarin) and will continue cultural studies as an integral part of the course. (GR)

CHIN-102A Intermediate Mandarin Chinese I
90.00 hrs lecture, 18.00 hrs lab
Units: 5.00
Prerequisite: CHIN-101B or three years of high school Chinese
Accepted For Credit: CSU & UC
This course is a continuation of CHIN-101B with emphasis on the four areas of listening, speaking, reading, and writing in Mandarin, as well as the study of Chinese culture with greater depth. (GR)

CHIN-102B Intermediate Mandarin Chinese II
90.00 hrs lecture, 18.00 hrs lab
Units: 5.00
Prerequisite: CHIN-102A
Accepted For Credit: CSU & UC
This course is a continuation of CHIN-102A with emphasis on the four areas of listening, speaking, reading, and writing in Mandarin, as well as the study of Chinese culture with greater depth. (GR)

CHIN-121B Mandarin Chinese Conversation II
54.00 hrs lecture
Units: 3.00
Prerequisite: CHIN-121A
Advisory: Eligible for ENGL-151B and ENGL-163
Accepted For Credit: CSU
This course is a continuation of CHIN-121A, an introduction to the study of speaking, reading, and writing the Chinese language (Mandarin) at the college level with emphasis on daily conversation in cultural contexts. (GC)
COMMUNICATION

Division: Language and Communication

COMM-100  Introduction to Communication Theory
54.00 hrs lecture
Units: 3.00
Advisory: ENGL-101A
Accepted For Credit: CSU & UC
Analyze and evaluate the major communication theories and research in the communication studies field. (GR)

COMM-101  Computer Mediated Communication
54.00 hrs lecture
Units: 3.00
Accepted For Credit: CSU
Explores various human relationships using computer mediated communication (CMC) such as Twitter, Facebook, email, blogs, online games, and business networking sites. This is a survey, social science course that addresses the theoretical issues related to CMC such as how we represent identity, form and maintain relationships, and the various levels of mass media consumption. (GR)

COMM-108  Visual Communication
54.00 hrs lecture, 36.00 hrs lab
Units: 3.00
Cross-referenced Course: MM-108
Accepted For Credit: CSU & UC
This course explores the fundamental elements of visual communication presented through lectures and applied through studio experiences. Examine the methods of visual communication from Gutenberg to Google, analyzing examples in a variety of visual forms including print (newspaper and magazine), graphics, illustrations, photographs, video, motion pictures, and digital media. (GR)

COMPUTER APPLICATIONS AND OCCUPATIONAL TECHNOLOGY

Division: Business, Technology, and Learning Resources

CAOT-101A  Computer Applications I
27.00 hrs lecture, 27.00 hrs lab
Units: 2.00
Cross-referenced Course: CS-101A
Advisory: CS-101
Accepted For Credit: CSU & UC
This course is the first in a three part series covering topics which include how to use Word documents, spreadsheets, database management programs, presentation graphics, and how to effectively use personal information manager programs. Students will also learn how to integrate program components. Repeatable = 1 time (GC)

CAOT-101B  Computer Applications II
27.00 hrs lecture, 27.00 hrs lab
Units: 2.00
Advisory: CAOT-101A
Accepted For Credit: CSU
This course is the second in a three part series covering topics which include how to use Word documents, spreadsheets, database management programs, presentation graphics, and how to effectively use personal information manager programs. Students will also learn how to integrate program components. (GC)

CAOT-101C  Computer Applications III
27.00 hrs lecture, 27.00 hrs lab
Units: 2.00
Advisory: CAOT-10B
Accepted For Credit: CSU
This course is the third in a three part series covering topics which include how to use Word documents, spreadsheets, database management programs, presentation graphics, and how to effectively use personal information manager programs. Students will also learn how to integrate program components. (GC)

CAOT-104  Basic Keyboarding
54.00 hrs lab
Units: 1.00
This self-paced introductory course develops basic keyboarding skills for students entering a variety of fields such as computer science, data processing, accounting, or any other occupation that utilizes a keyboard similar to a typewriter to input information. No typing applications will be covered. Repeatable = 3 times (GR)

CAOT-110A  Beginning Keyboarding
9.00 hrs lecture, 27.00 hrs lab
Units: 1.00
This course includes mastery of the keyboard with touch typing. Repeatable = 1 time (GR)

CAOT-110B  Beginning Keyboarding II
9.00 hrs lecture, 27.00 hrs lab
Units: 1.00
Prerequisite: CAOT-110A
This self-paced course includes an introduction to memo business and personal letters and simple reports. Repeatable = 3 times (GR)

CAOT-110C  Beginning Keyboarding III
9.00 hrs lecture, 27.00 hrs lab
Units: 1.00
Prerequisite: CAOT-110B
CAOT-110C is the final course in a three-part series where students learn mastery of creating and formatting business documents. Repeatable = 3 times (GC)

CAOT-111  Intermediate Keyboarding
36.00 hrs lecture, 54.00 hrs lab
Units: 3.00
Prerequisite: CAOT-110C
This self-paced course includes improvement of basic skills, letter production, business forms, tabulated reports, and manuscripts. (GC)

CAOT-112  Advanced Keyboarding
18.00 hrs lecture, 54.00 hrs lab
Units: 2.00
Prerequisite: CAOT-111 or two years high school typing
This course includes production typing with emphasis on speed and accuracy in the preparation of table mastery, forms, financial documents, graphic enhancements, meeting management, and legal, medical, and employment documents. (GC)
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
<th>Units</th>
<th>Advisory</th>
<th>Prerequisites</th>
<th>Cross-referenced Course</th>
<th>Accepted For Credit</th>
<th>Notes</th>
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<td>CAOT-134A</td>
<td>Beginning Microsoft Access</td>
<td>4.50</td>
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<td>CAOT-134B</td>
<td>Intermediate Microsoft Access</td>
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<td>CAOT-150</td>
<td>Computer Applications for Chemistry</td>
<td>9.00</td>
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<td>CAOT-153</td>
<td>Introduction to Internet</td>
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<td>CAOT-161A</td>
<td>Digital Graphics I</td>
<td>18.00</td>
<td>2.00</td>
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<td>ART-161A, GA-161A</td>
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<tr>
<td>CAOT-161B</td>
<td>Digital Graphics II</td>
<td>18.00</td>
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<td>ART-161A, ART-161A, or CAOT-161A</td>
<td>CSU</td>
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<td>CAOT-166</td>
<td>2D Drafting with AutoCAD</td>
<td>45.00</td>
<td>3.00</td>
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<tr>
<td>CAOT-167</td>
<td>3D Drafting with AutoCAD</td>
<td>45.00</td>
<td>3.00</td>
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<td>CAOT-187</td>
<td>PowerPoint Presentations</td>
<td>4.50</td>
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<td>CAOT-193A</td>
<td>Beginning Excel</td>
<td>4.50</td>
<td>0.50</td>
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<td>ART-161B, GA-161B</td>
<td>CSU</td>
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CAOT-193B Intermediate Excel
4.50 hrs lecture, 13.50 hrs lab
Units: 0.50
Advisory: CAOT-193A; eligible for ENGL-151B, ENGL-163
This is an intermediate course in the use of microcomputer spreadsheet for business applications. Topics include using mixed cell references, large worksheets, simple database functions, charts, and working with multiple worksheets. Repeatable = 1 time (GC)

CAOT-193C Advanced Excel
4.50 hrs lecture, 13.50 hrs lab
Units: 0.50
Advisory: CAOT-193B; eligible for ENGL-151B, ENGL-163
This is an advanced course in the use of Excel for business applications. Topics include working with multiple worksheets, examining cost-volume-profit relationships and "what if" analyses, importing files and tables, and retrieving data from the World Wide Web. Repeatable = 1 time (GC)

CAOT-195A1 Work Experience Education – Vocational
75.00 hrs lab
Units: 1.00
Accepted For Credit: CSU
Work experience education for students employed in jobs directly related to a major. Units received are based on hours worked. (GC)

CAOT-195A2 Work Experience Education – Vocational
150.00 hrs lab
Units: 2.00
Accepted For Credit: CSU
Work experience education for students employed in jobs directly related to a major. Units received are based on hours worked. (GC)

CAOT-195A3 Work Experience Education – Vocational
225.00 hrs lab
Units: 3.00
Accepted For Credit: CSU
Work experience education for students employed in jobs directly related to a major. Units received are based on hours worked. (GC)

CAOT-195A4 Work Experience Education – Vocational
300.00 hrs lab
Units: 4.00
Accepted For Credit: CSU
Work experience education for students employed in jobs directly related to a major. Units received are based on hours worked. (GC)

CNET-101 Introduction to Computers and Information Technology
54.00 hrs lecture
Units: 3.00
Cross-referenced Course: CS-101
Advisory: Eligible for ENGL-151B and ENGL-163; concurrent enrollment in CS-101A
Accepted For Credit: CSU & UC
This course is a general introduction to the area of computers and information technology and is designed for all students. This survey course will examine a broad overview of topics including software, hardware, the networking of computer systems, and information technology. Students will explore the implications of this technology with regard to today's information society. (GC)

CNET-102 Information and Communication Technology – Web 2.0
54.00 hrs lecture
Units: 3.00
Advisory: CS/CNET-101
Accepted For Credit: CSU
This course is a general introduction to the application of information and communication technology (ICT), and is designed for students who have a focused interest in connecting, collaborating, and sharing knowledge. This course will examine Web 2.0 applications and services—such as social-networking sites, wikis, and folksonomies—which aim to facilitate collaboration and sharing between users. (GC)

CNET-105 PC Hardware and Software
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Accepted For Credit: CSU
This course includes hardware and software topics relevant to personal computer (PC) troubleshooting. Emphasis is placed on developing essential troubleshooting and repair skills and preparation for the A+ certification exam. Repeatable = 3 times (GC)

CNET-108 IT Project Management
54.00 hrs lecture
Units: 3.00
Accepted For Credit: CSU
Learn the concepts and skills that build the foundations of project management—project integration, scope, time, cost, quality, human resources, communications, risk, and procurement—within an information technology environment. (GC)
This hands-on training course explores installation, configuration, and management of VMware ESXi/ESX™ and VMware vCenter™ Server. Upon completion of this course students can take the examination to become a VMware Certified Professional. The course is based on ESXi 4.0, ESX 4.0, and vCenter Server 4.0. Repeatable = 3 times (GC)
CNET-140B  Linux System Administration  
27.00 hrs lecture, 27.00 hrs lab  
Units: 2.00  
Prerequisite: CNET-150; CS-146 or CNET-146  
Advisory: CNET-140A  
Accepted For Credit: CSU  
This course introduces the fundamental knowledge and skills needed to install, manage, and maintain a Linux computer system. Advanced system management tasks like file system management, patching, rebuilding the kernel, configuring networking interfaces, and system monitoring are performed in the computer lab. Shell programming and the various shells are introduced, and students will learn to write shell script programs to perform various system tasks. This course is preparation for Sair Linux and GNU certification. Repeatable = 3 times (GC)  

CNET-141A  Linux Apache Web Server Administration  
27.00 hrs lecture, 27.00 hrs lab  
Units: 2.00  
Accepted For Credit: CSU  
This course is designed to give the student a working knowledge of web pages developed with Hypertext Markup Language (HTML), PHP: Hypertext Preprocessor (PHP), and Java Server Page (JSP). Students will install and configure the Apache Web server, the MySQL database for simple datastore purposes, and the Tomcat servlet container. Repeatable = 3 times (GC)  

CNET-142A  Linux Networking  
27.00 hrs lecture, 27.00 hrs lab  
Units: 2.00  
Prerequisite: CNET-150; CS-146 or CNET-146  
Advisory: CNET-140A, CNET-140B  
Accepted For Credit: CSU  
This course introduces the functions and features of the Linux operating system in Network. The course describes the major client and server services that are found in most networked computer systems. Students will implement in the computer lab such services as telnet, ftp, nfs, nic, web, mail, dns, samba, and dhcp. This course is preparation for Sair Linux and GNU certification. Repeatable = 3 times (GC)  

CNET-142B  Linux Security  
27.00 hrs lecture, 27.00 hrs lab  
Units: 2.00  
Prerequisite: CNET-150; CS-146 or CNET-146  
Advisory: CNET-140A, CNET-140B  
Accepted For Credit: CSU  
Students with Linux experience will gain knowledge and skills in implementing Linux security. This course is preparation for Sair Linux and GNU certification. Repeatable = 3 times (GC)  

CNET-145  PHP Programming with MySQL  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Cross-referenced Course: CS-145  
Accepted For Credit: CSU  
This is a programming class teaching the student how to access a relational database (MySQL) and generate Web pages using PHP. The student does not need prior programming experience but general computer knowledge is recommended. (GC)  

CNET-146  Introduction to UNIX/Linux  
36.00 hrs lecture, 54.00 hrs lab  
Units: 3.00  
Cross-referenced Course: CS-146  
Advisory: CNET-150  
Accepted For Credit: CSU  
This lecture-lab course introduces functions of and features of UNIX/Linux operating system, including origin and evolution, hardware and software, graphical user interface, files and file system structure, system services, processes, background processing, scheduling, file security, editors, file sharing, and redirection and piping. Students are introduced to networking and internetworking, internet, shell programming, and a variety of UNIX/Linux tools commonly used for software development and system administration in a UNIX/Linux environment. Repeatable = 3 times (GC)  

CNET-147  UNIX/Linux Shell Scripting  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Cross-referenced Course: CS-147  
Advisory: CS-102  
Accepted For Credit: CSU & UC  
This hands-on course introduces a variety of tools and concepts used for working with a UNIX/Linux-based computer system. The course will present the concept of a shell and describe differences between Bourne, Berkeley C, Korn, and Bash shells. Students will be given instruction and assignments in the use of vi, sed, awk and other tools as time and interest permit. Students will write shell script programs to exercise their understanding of tools and concepts. Repeatable = 3 times (GC)  

CNET-149  PERL Programming  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Cross-referenced Course: CS-149  
Advisory: CS-102  
Accepted For Credit: CSU & UC  
This course presents the fundamental knowledge and skills needed to solve problems using the PERL language. This language is particularly well suited to manipulating textual data and remains a favorite among UNIX system administrators for automating common administrative tasks and widespread among web masters for writing CGI applications. (GC)  

CNET-150  Network Operating Systems  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Advisory: CS-101 or CNET-101  
Accepted For Credit: CSU  
This course provides an in-depth study of Network Operating Systems. The web-based curriculum, sponsored by Hewlett-Packard Company, is an intensive introduction to multi-tasking network operating systems. Characteristics of the Linux, Windows 2000, NT, and XP network operating systems will be discussed. Students will explore a variety of topics including installation procedures, security issues, back up procedures, and remote access. This course provides the foundation for student preparing to take the CompTIA A+ certification exam. Repeatable = 3 times (GC)  

CNET-152  Data Communications  
36.00 hrs lecture  
Units: 2.00  
Cross-referenced Course: CS-152  
Accepted For Credit: CSU  
This course is an introduction to data communications. It will include Internet, e-mail, modems, communication protocol, local area networks, wide area networks, network design, and management. (GC)
CNET-154 Network Technician Training
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Accepted For Credit: CSU
This course prepares students for the knowledge and skills required to successfully install, operate, and troubleshoot a small branch office network. The course includes topics on networking fundamentals; connecting to a WAN; basic security and wireless concepts; routing and switching fundamentals; the TCP/IP and OSI models; IP addressing; WAN technologies; operating and configuring IOS devices; configuring RIPv2, static and default routing; implementing NAT and DHCP; and configuring simple networks. Repeatable = 2 times (GC)

CNET-155A Network Fundamentals
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Advisory: CS-152 or CNET-152; CNET-150
Accepted For Credit: CSU
This course introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. It uses the OSI and TCP layered models to examine the nature and roles of protocols and services at the application, network, data link, and physical layers. The principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations are introduced to provide a foundation for the curriculum. At the end of the course, students build simple LAN topologies by applying basic principles of cabling; performing basic configurations of network devices, including routers and switches; and implementing IP addressing schemes. This course is preparation for the Cisco Certified Networking Associate (CCNA) certification. Repeatable = 3 times (GC)

CNET-155B Routing Protocols and Concepts
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Advisory: CNET-155A
Accepted For Credit: CSU
This course describes the architecture, components, and operation of routers, and explains the principles of routing and routing protocols. Students analyze, configure, verify, and troubleshoot the primary routing protocols RIPv1, RIPv2, EIGRP, and OSPF. By the end of this course, students will be able to recognize and correct common routing issues and problems. This course is preparation for the Cisco Certified Networking Associate (CCNA) certification. Repeatable = 3 times (GC)

CNET-156A LAN Switching and Wireless
27.00 hrs lecture, 2700 hrs lab
Units: 2.00
Advisory: CNET-155A
Accepted For Credit: CSU
This course focuses on the technologies and protocols needed to design and implement a converged switched network. Students will learn how to configure a switch for basic functionality and implement virtual LANs, VTP, and Inter-VLAN routing in a converged network. The different implementations of Spanning Tree Protocol in a converged network are presented and students will develop the knowledge and skills necessary to implement a WLAN (wireless LAN) in a small-to-medium network. This course is preparation for the Cisco Certified Network Associate (CCNA) certification. Repeatable = 3 times (GC)

CNET-156B WAN Design and Support
27.00 hrs lecture, 2700 hrs lab
Units: 2.00
Advisory: CNET-155A, CNET-155B, and CNET-156A
Accepted For Credit: CSU
This is the last of four courses designed to introduce students to current and emerging networking technology. The focus of this course is on Wide Area Network (WAN) technologies. This course is preparation for the Cisco Certified Networking Associate (CCNA) certification. Repeatable = 3 times (GC)

CNET-157 TCP/IP and Internetworking
54.00 hrs lecture
Units: 3.00
Cross-referenced Course: CS-157
Prerequisite: CS-152 or CNET-152
Advisory: CS-101 or CNET-101
Accepted For Credit: CSU
This course provides an introduction and overview of TCP/IP technology. Topics include TCP/IP concepts, protocol architecture, and installation techniques. It prepares the student to pass the certification exam. Internetworking Microsoft TCP/IP, to become an MCP/MCSE. Repeatable = 3 times (GR)

CNET-158 Wireless Networks
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Prerequisite: CNET-150
Advisory: CNET-105, CNET-155A
Accepted For Credit: CSU
This introductory course to wireless communication and LANs focuses on the design, planning, implementation, operation, and troubleshooting of Wireless LANs. It covers a comprehensive overview of technologies, security, and design best practices with particular emphasis on hands-on skills. Repeatable = 3 times (GC)

CNET-160A Microsoft Client Operating Systems
27.00 hrs lecture, 2700 hrs lab
Units: 2.00
Accepted For Credit: CSU
This course provides students with the knowledge and skills necessary to set up and support the current Windows Client Operating System, and prepare for the corresponding Microsoft Certified Technology Specialist (MCTS) exam. Students will get practical experience installing, administering, and troubleshooting this next-generation desktop environment. Repeatable = 3 times (GR)

CNET-161A Desktop Support I – Supporting Users
27.00 hrs lecture, 2700 hrs lab
Units: 2.00
Accepted For Credit: CSU
This course is designed to provide individuals who are new to Microsoft Windows XP with the knowledge and skills necessary to troubleshoot the basic problems end users will face while running Microsoft Windows XP. Professional in an Active Directory network environment or Windows XP Home edition in a workgroup environment. This is an introductory course designed to provide an overview of operating system concepts and how to troubleshoot Windows XP. Repeatable = 3 times (GC)
CNET-161B  Desktop Support II – Supporting Applications  
27.00 hrs lecture, 27.00 hrs lab  
Units: 2.00  
Accepted For Credit: CSU  

Students in this class will learn how to support end users who run Microsoft Windows XP Professional in a corporate environment or Microsoft Windows XP Home edition in a home environment. They gain experience using applications that are included with the operating system, such as Microsoft Internet Explorer and Microsoft Outlook Express, as well as the productivity applications used in a corporate environment, such as Microsoft Office applications. Students will learn how to resolve operating system issues by telephone, by connecting to an end user’s system remotely, or by visiting an end user’s desktop. They should have a working knowledge of operating in a workgroup or Active Directory domain environment and how end users are affected by each environment. Repeatable = 3 times (GC)

CNET-162  Windows Network Infrastructure Administration  
27.00 hrs lecture, 27.00 hrs lab  
Units: 2.00  
Accepted For Credit: CSU  

This course prepares students as system administrators who will be responsible for installing, configuring, managing, supporting a secure network infrastructure, and implementing fault tolerant storage technologies that use the Microsoft Windows Server products. This course helps students prepare for the corresponding Microsoft exam, a core requirement on the MCITP Server Administrator and Enterprise Administrator tracks. Repeatable = 3 times (GC)

CNET-164  Microsoft Directory Services  
27.00 hrs lecture, 27.00 hrs lab  
Units: 2.00  
Accepted For Credit: CSU  

This course prepares students to install, configure, and administer Microsoft Windows Active Directory directory services. The course covers configuring, managing, and supporting user and computer accounts, groups, Domain Name System zones and client settings; group policy objects; the new Active Directory Lightweight Directory Service and Active Directory Rights Management Service; backup and recovery; and communication security. Repeatable = 3 times (GC)

CNET-165A  Designing a Secure Microsoft Windows Network  
27.00 hrs lecture, 27.00 hrs lab  
Units: 2.00  
Prerequisite: CNET-150  
Advisory: CS-157 or CNET-157; CNET-160A, CNET-162A, CNET-162B, CNET-164A  
Accepted For Credit: CSU  

This course provides students with the knowledge and skills necessary to design a security framework for small, medium, and enterprise networks using Microsoft Windows technologies. This course prepares students for the corresponding Microsoft Certified Professional (MCP) Exam 70-298, a core requirement on the MCSE track. Repeatable = 3 times (GC)

CNET-165B  Microsoft Internet Security and Acceleration Server (ISA)  
27.00 hrs lecture, 27.00 hrs lab  
Units: 2.00  
Advisory: CNET-160A; CNET-162A; CS-157 or CNET-157  
Accepted For Credit: CSU  

Students will gain the knowledge and skills to deploy and manage Microsoft Internet Security and Acceleration (ISA) Server 2000 in an enterprise environment and experience setting up a Web site. This course prepares students for MCP+Internet/MCSE certifications. Repeatable = 3 times (GC)

CNET-166  Microsoft Server Operating Systems  
27.00 hrs lecture, 27.00 hrs lab  
Units: 2.00  
Accepted For Credit: CSU  

This course focuses on Microsoft Windows Server 2008 administration. It covers planning server roles; maintaining server security; planning data storage, network load balancing, and server backups; managing software deployment and versioning; monitoring IPv6, server performance and capacity, and Active Directory® replication; scheduling server deployments; and designing a rollback contingency plan. Repeatable = 3 times (GC)

CNET-166A  Developing Windows Server  
27.00 hrs lecture, 27.00 hrs lab  
Units: 2.00  
Accepted For Credit: CSU  

This course will provide students with the knowledge and skills to install and deploy Windows Server 2008 R2. This course also will teach students how to automate server deployment, as well as provide guidelines, best practices, and considerations that will help to migrate existing services to Windows Server 2008 R2. Repeatable = 3 times (GC)

CNET-166B  Configuring and Troubleshooting Internet Information Services  
27.00 hrs lecture, 27.00 hrs lab  
Units: 2.00  
Accepted For Credit: CSU  

This course is for students who want to become a Web Server Administrator in an enterprise environment. Also, students who are assuming a new role requiring skills to manage content served by an IIS 7.0 Web Server over an intranet, extranet, and Internet would be interested in this course. Repeatable = 3 times (GC)

CNET-166C  Configuring and Troubleshooting Windows Terminal Services  
27.00 hrs lecture, 27.00 hrs lab  
Units: 2.00  
Accepted For Credit: CSU  

This course provides students with the knowledge and skills to configure, manage, monitor, and troubleshoot a Terminal Services (TS) environment. The course focuses on configuring TS core functionality, licensing, Gateway, and Web Access. Repeatable = 3 times (GC)

CNET-167A  Administering Microsoft Exchange Server 2010  
27.00 hrs lecture, 27.00 hrs lab  
Units: 2.00  
Accepted For Credit: CSU  

This course is to teach students the knowledge and skills necessary to install, configure, and administer Microsoft Exchange Server 2010 and prepare for the corresponding Microsoft Certification Exam 70-662. Repeatable = 3 times (GC)

CNET-168A  Maintaining a Microsoft SQL Server 2008 Database  
27.00 hrs lecture, 27.00 hrs lab  
Units: 2.00  
Accepted For Credit: CSU  

This course will provide students with the knowledge and skills to maintain a Microsoft SQL Server 2008 database. The course focuses on teaching students how to use SQL Server 2008 product features and tools related to maintaining a database. Prepares student for the Microsoft Certification Exam 70-432 TS: Microsoft SQL Server 2008, Implementation and Maintenance. Repeatable = 3 times (GC)
CNET-170  Network Security  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Prerequisite: CNET-150  
Advisory: CS-146 or CNET-146; CNET-160A, CNET-162A, CNET-140A, or CNET-140B  
Accepted For Credit: CSU  
This course provides an in-depth study of Network Security fundamentals and provides a comprehensive overview of network security. The class is broken down into five sections: General Security Concepts, Communication Security, Infrastructure Security, Cryptography, and Operational/Organizational Security. This course provides the foundation for students preparing to take the CompTIA Security+ certification exam. Repeatable = 3 times (GC)

CNET-180  IP Telephony and VoIP Implementation  
27.00 hrs lecture, 27.00 hrs lab  
Units: 2.00  
Accepted For Credit: CSU  
The course offers an overview of the issues related to carrying voice on a data network, the protocols used, and the issues associated with QoS, troubleshooting, security, and design. The course begins with describing the basic technologies used in the Public Switched Telephone System. It then describes the challenges and technologies used to send voice calls over a packet switch network like the Internet. Repeatable = 2 times (GC)

CNET-182  Advanced Routing (CCNP ROUTE)  
36.00 hrs lecture, 54.00 hrs lab  
Units: 3.00  
Accepted For Credit: CSU  
This is the first of three courses leading to the Cisco Certified Network Professional (CCNP) designation. This course introduces students to scaling IP networks. Students learn to use VLSM, private addressing, and NAT optimize IP address utilization. The majority of the course content is related to learning how to implement the RIPV2, EIGRP, OSPF, IS-IS, and BGP routing protocols. In addition, the course details the important techniques used for multicasting, route filtering, and route redistribution. This course will prepare students for the Cisco Certified Networking Professional (CCNP ROUTE) 642-901 exam. Repeatable = 3 times (GC)

CNET-184  Advanced Switching (CCNP SWITCH)  
27.00 hrs lecture, 81.00 hrs lab  
Units: 3.00  
Accepted For Credit: CSU  
This course enables learners to use appropriate technologies to build scalable multilayer switched networks, to create and deploy a global intranet, and to implement basic troubleshooting techniques in environments that use Cisco multilayer switches for client hosts and services. This course also enables learners to improve traffic flow, reliability, redundancy, and performance for LAN switching that is self-supported or transported via a service provider. This course will prepare students for the Cisco Certified Networking Professional (CCNP SWITCH) exam. Repeatable = 3 times (GC)

CNET-186  Troubleshooting IP Networks (CCNP TSHOOT)  
36.00 hrs lecture, 54.00 hrs lab  
Units: 3.00  
Advisory: CNET-182 and CNET-184  
Accepted For Credit: CSU  
This course teaches students how to monitor and maintain complex, enterprise routed and switched IP networks. Skills learned include the planning and execution of regular network maintenance, as well as support and troubleshooting using technology-based processes and best practices, in a systematic and ITIL-compliant approach. Extensive labs emphasize hands-on learning and practice to reinforce troubleshooting techniques. Repeatable = 3 times (GC)

CNET-195A1  Work Experience Education – Vocational  
75.00 hrs lab  
Units: 1.00  
Accepted For Credit: CSU  
Work experience education for students employed in jobs directly related to a major. Units are based on hours worked. (GC)

CNET-195A2  Work Experience Education – Vocational  
150.00 hrs lab  
Units: 2.00  
Accepted For Credit: CSU  
Work experience education for students employed in jobs directly related to a major. Units are based on hours worked. (GC)

CNET-195A3  Work Experience Education – Vocational  
225.00 hrs lab  
Units: 3.00  
Accepted For Credit: CSU  
Work experience education for students employed in jobs directly related to a major. Units are based on hours worked. (GC)

CNET-195A4  Work Experience Education – Vocational  
300.00 hrs lab  
Units: 4.00  
Accepted For Credit: CSU  
Work experience education for students employed in jobs directly related to a major. Units are based on hours worked. (GC)

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COMPUTER SCIENCE

Division: Business, Technology, and Learning Resources

CS-101  Introduction to Computers and Information Technology  
54.00 hrs lecture  
Units: 3.00  
Cross-referenced Course: CNET-101  
Advisory: Eligible for ENGL-151B and ENGL-163; concurrent enrollment in CS-101A  
Accepted For Credit: CSU & UC  
This course is a general introduction to the area of computers and information technology and is designed for all students. This survey course will examine a broad overview of topics including software, hardware, the networking of computer systems, and information technology and surveys of programming languages. The student will explore the implications of this technology with regard to today’s information society. (GC)
CS-101A  Computer Applications I
27.00 hrs lecture, 27.00 hrs lab
Units: 2.00
Cross-referenced Course: CAOT-101A
Advisory: CS-101
Accepted For Credit: CSU
This course is the first in a three part series covering topics which include how to use Word documents, spreadsheets, database management programs, presentation graphics, and how to effectively use personal information manager programs. Students will also learn how to integrate program components. Repeatable = 1 time (GC)

CS-102  Introduction to Computer Programming Using C++
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Prerequisite: MATH-152 or MATH-153
Advisory: CS-101 or CNET-101
Accepted For Credit: CSU & UC
This course is an introduction to computer programming. Its primary objective is to teach problem solving using the C++ programming language. Emphasis will be placed on structured procedural programming with an introduction to object-oriented programming. This course is designed primarily for computer science and related transfer majors. (GC)

CS-104A  Introduction to .NET Programming
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Advisory: MATH-152 or MATH-153; CS-101 or CNET-101
Accepted For Credit: CSU & UC
This course covers the skills necessary to create structured Windows Applications. The class uses C# for design and development. Topics covered will include language syntax, event-driven programming, structured programming, most of the standard tools, and user interface strategies. This course is intended for a general audience with no programming experience. (GC)

CS-104B  Advanced .NET Programming
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Advisory: CS-104A
Accepted For Credit: CSU & UC
This is an advanced course for .NET application design and development. Three major areas covered are Graphical User Interface for Windows applications; ADO.NET and SQL for access to databases; and XML and ASP.NET for Web forms and services. The .NET Framework will be used in class for program development. (GC)

CS-104D  Web Services for .NET
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Advisory: CS-104A and CS-122
Accepted For Credit: CSU
This course is designed to provide students with the knowledge and skills required to develop Extensible Markup Language (XML) Web Services. The course focuses on using Microsoft Visual Studio .NET and Microsoft ASP.NET to enable students to build, deploy, locate, and consume Web services. Repeatable = 2 times (GC)

CS-113  Discrete Mathematics for Computers
54.00 hrs lecture
Units: 3.00
Cross-referenced Course: MATH-163
Prerequisite: MATH-188
Advisory: MATH-101A and MATH-101B
Accepted For Credit: CSU & UC
This course is an introduction to discrete mathematics and its applications. Topics to be covered include logic, sets, relations, functions, combinatorics, graph and tree theory, Boolean algebra, Proofs, and algorithms. Applications to computer studies and other related areas will be presented. (GC)

CS-116  Object-Oriented Programming Using C++
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Prerequisite: CS-102
Accepted For Credit: CSU & UC
This intermediate-level programming course is intended for those students who already have completed an introductory programming course. It presents a comprehensive study of the C++ programming language and its role in the realm of object-oriented programming. The C++ language supports polymorphism, function and operator overloading, function and class templates, and exception handling. (GC)

CS-118  Introduction to Assembly Language Programming
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Prerequisite: CS-102
Accepted For Credit: CSU & UC
This course is an introduction to Assembly Language for Intel-based computers. Topics include numbering systems, architecture, native machine instructions, memory addressing, subroutines, interrupt handling, file I/O, and interaction between assembly language programs, the operating system, and other languages. (GR)

CS-119  Computer Architecture
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Advisory: CS-102, CS-113, CS-118
Accepted For Credit: CSU
This course will present the logical design of digital computers. The following topics will be covered: Boolean algebra, combinational and sequential circuits, computer arithmetic, memories, integrated circuits, control processors, input/output. No electronic experience is needed. (GR)

CS-124  Programming With Data Structures
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Prerequisite: CS-102
Accepted For Credit: CSU & UC
This course involves the study and implementation of data structure programming techniques. The emphasis is on the data structures of stacks, queues, lists, trees and graphs; the use of recursion; and the application of these tools primarily in searching and sorting. Students will implement these concepts by writing numerous programs in an object-oriented language such as C++. (GC)

Did you know???
Community college students who earned a vocational degree or certificate in 2005-2006 saw their wages jump from $29,750 (for the last year before receipt of the award) to $58,777 four years after earning their degree (2009), an increase of almost 100 percent. 
Source: Accountability Reporting for Community Colleges.
CS-125  Introduction to Programming Using Java  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Prerequisite: MATH-152  
Advisory: CS-101 or CNET-101  
Accepted For Credit: CSU & UC  
This course is an introduction to computer programming. Its primary objective is to teach the fundamentals of programming using the Java programming language. Emphasis will be placed on basic Java programming concepts and skills. This course is designed primarily for computer science and related transfer majors. Repeatable = 2 times (GC)

CS-131  Computing Concepts in Biotechnology  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Cross-referenced Course: BIOT-131  
Accepted For Credit: CSU  
This course introduces the basic computing concepts, the most commonly used computer algorithms, and programming languages in biotechnology. (GC)

CS-133  Introduction to SAS Programming  
54.00 hrs lecture  
Units: 3.00  
Cross-referenced Course: BIOT-133  
Accepted For Credit: CSU  
The SAS system has become the international standard for data management, manipulation, storage, retrieval, and statistical analysis. This course offers an introduction to the SAS software by using core elements of the SAS system language and procedures. (GR)

CS-133A  Data Analysis Using SAS  
54.00 hrs lecture  
Units: 3.00  
Cross-referenced Course: BIOT-133A  
Prerequisite: CS-133 or BIOT-133  
Accepted For Credit: CSU  
This course focuses on the following key areas: statistical inference, analysis of variance, multiple regression, categorical data analysis, and logistic regression. (GC)

CS-137  Introduction to SQL  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Cross-referenced Course: CNET-137  
Accepted For Credit: CSU  
This course covers the concepts of relational databases and powerful SQL. Students are taught to create and maintain database objects and to store, retrieve, and manipulate data. Demonstrations and hands-on practice reinforce the fundamental concepts. (GC)

CS-141B  SAS Graphing and ODS  
27.00 hrs lecture, 27.00 hrs lab  
Units: 2.00  
Cross-referenced Course: BIOT-141B  
Advisory: CS-133 or BIOT-133  
Accepted For Credit: CSU  
This course introduces SAS/GRAPH and ODS. Learn how to design, construct, and display customized graphs quickly and efficiently. Learn how to create a data set from the results of most SAS procedures and build custom reports. Repeatable = 1 time (GC)

CS-143  Advanced SAS Programming  
54.00 hrs lecture  
Units: 3.00  
Cross-referenced Course: BIOT-143  
Advisory: BIOT-133/CS-133 or some experience in SAS programming  
Accepted For Credit: CSU  
This course provides students with a basic understanding of macro programming and SQL procedure in SAS software. SQL and macro programming can provide more flexibility and power in data management and data analysis. (GR)

CS-145  PERL Programming  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Cross-referenced Course: CNET-145  
Accepted For Credit: CSU  
This is a programming class teaching the student how to access a relational database (MySQL) and generate Web pages using PHP. The student does not need prior programming experience but general computer knowledge is recommended. (GC)

CS-146  Introduction to UNIX/Linux  
36.00 hrs lecture, 54.00 hrs lab  
Units: 3.00  
Cross-referenced Course: CNET-146  
Advisory: CNET-150  
Accepted For Credit: CSU  
This lecture-lab course introduces functions of and features of UNIX/Linux operating system, including origin and evolution, hardware and software, graphical user interface, files and file system structure, system services, processes, background processing, scheduling, file security, editors, file sharing, and redirection and piping. Students are introduced to networking and internetworking, internet, shell programming, and a variety of UNIX/Linux tools commonly used for software development and system administration in a UNIX/Linux environment. Repeatable = 3 times (GC)

CS-147  UNIX/Linux Shell Scripting  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Cross-referenced Course: CNET-147  
Advisory: CS-102  
Accepted For Credit: CSU & UC  
This hands-on course introduces a variety of tools and concepts used for working with a UNIX/Linux-based computer system. The course will present the concept of a shell and describe differences between Bourne, Berkeley C, Korn, and Bash shells. Students will be given instruction and assignments in the use of vi, sed, awk and other tools as time and interest permit. Students will write shell script programs to exercise their understanding of tools and concepts. Repeatable = 3 times (GC)

CS-149  PERL Programming  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Cross-referenced Course: CNET-149  
Advisory: CS-102  
Accepted For Credit: CSU & UC  
This course presents the fundamental knowledge and skills needed to solve problems using the PERL language. This language is particularly well suited to manipulating textual data and remains a favorite among UNIX system administrators for automating common administrative tasks and widespread among Web masters for writing CGI applications. (GC)
CS-151  Internet for Research  
9.00 hrs lecture  
Units: 0.50  
Cross-referenced Course: LS-151  
Advisory: CAOT-153  
Accepted For Credit: CSU  
This course presents instruction in the use of the Internet as an alterna \-  
te to traditional college-level learning resources. It will teach skills and strategies for finding and retrieving information on the Internet. (CR)

CS-152  Data Communications  
36.00 hrs lecture  
Units: 2.00  
Cross-referenced Course: CNET-152  
Accepted For Credit: CSU  
This course is an introduction to data communications. It will include Internet, e-mail, modems, communication protocol, local area networks, wide area networks, network design, and management. (GC)

CS-157  TCP/IP and Internetworking  
54.00 hrs lecture  
Units: 3.00  
Cross-referenced Course: CNET-157  
Prerequisite: CS-152 or CNET-152  
Advisory: CS-101 or CNET-101  
Accepted For Credit: CSU  
This course provides an introduction and overview of TCP/IP technology. Topics include TCP/IP concepts, protocol architecture, and installation techniques. The course prepares the student to pass the certification exam, Internetworking Microsoft TCP/IP, to become an MCP/MCSE. Repeatable = 3 times (GR)

CS-160A  Computer Graphics I  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Cross-referenced Course: ART-160A, BA-160A, GA-160A  
Accepted For Credit: CSU & UC  
This course is an introduction to microcomputers and to the creation of computer-generated graphics. This course examines the variety of software/hardware tools and techniques available for the production of computer-made imagery. The emphasis is on hard-copy production using printers, plotters, and other reproduction methods. This course also covers design principles, business graphics, and elementary programming principles. Repeatable = 3 times (GC)

CS-160B  Computer Graphics II  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Cross-referenced Course: ART-160B, BA-160B, GA-160B  
Prerequisite: CS-160A, GA-160A, ART-160A, or BA-160A  
Accepted For Credit: CSU  
This course is a continuation of CS-160A. The emphasis in this course is on developing intermediate and advanced skills needed to operate a computer graphics work station. The students complete projects of their choice using more complex Paint and CAD software, printers, and plotters. Repeatable = 3 times (GC)

CS-162  XHTML  
36.00 hrs lecture, 108.00 hrs lab  
Units: 4.00  
Cross-referenced Course: MM-162  
Advisory: CS-101, CNET-101, or CS-101A  
Accepted For Credit: CSU  
Students will use XHTML to create multimedia Web pages using hypertext links, tables, frames, forms, cascading style sheets (CSS), JavaScript, and JavaScript objects and events. Other topics include Dynamic Hypertext Markup Language (DHTML) techniques and working with Extensible Markup Language (XML) and Extensible Stylesheet Language (XSL). Repeatable = 1 time (GC)

CS-170  Java Programming  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Advisory: CS-102 and CS-125  
Accepted For Credit: CSU & UC  
This intermediate-level programming course is intended for those students who already have completed an introductory programming course. It presents a comprehensive study of the object-oriented programming in Java. Fundamentals of encapsulation, inheritance, polymorphism, abstraction, method overloading and overriding, exception handling, GUI components, event handling, multimedia programming, and input/output streams are introduced. Repeatable = 2 times (GC)

CS-172  Servlets and JSP  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Advisory: CS-170  
Accepted For Credit: CSU  
This is an Internet programming and application course using Java technology, including Servlet, JSP, Session tracking, JavaBeans, and JDBC. Repeatable = 2 times (GC)

CS-173  Java EE and EJB  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Advisory: CS-170  
Accepted For Credit: CSU  
This course is an introduction to Java EE and EJB (Enterprise Java Beans). Students will design and develop the business applications and Web Services using Java EE and EJB. Repeatable = 2 times (GC)

CS-175  From JavaScript to AJAX  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Advisory: CS-101  
Accepted For Credit: CSU  
This is an introductory to intermediate course for the scripting language JavaScript, the glue between Web interactivity tools. The topics span from basic programming concepts to specific JavaScript syntax and methods used to manipulate information and code, which allow web forms validation, rewriting of HTML pages on the fly, and access to XML and other server information using AJAX. (GC)

CS-178  XML  
54.00 hrs lecture  
Units: 3.00  
Advisory: CS-170  
Accepted For Credit: CSU  
This course is designed to teach students the technologies of XML (the Extensible Markup Language), XSL (Extensible Stylesheet Language), and DSSSL (Document Style Symantics and Specification Language). Repeatable = 1 time (GC)
CS-195A1  **Work Experience Education – Vocational**  
75.00 hrs lab  
Units: 1.00  
Accepted For Credit: CSU  
Work experience education for students employed in jobs directly related to a major. Units are based on hours worked.  
(GC)

CS-195A2  **Work Experience Education – Vocational**  
150.00 hrs lab  
Units: 2.00  
Accepted For Credit: CSU  
Work experience education for students employed in jobs directly related to a major. Units are based on hours worked.  
(GC)

CS-195A3  **Work Experience Education – Vocational**  
225.00 hrs lab  
Units: 3.00  
Accepted For Credit: CSU  
Work experience education for students employed in jobs directly related to a major. Units are based on hours worked.  
(GC)

CS-195A4  **Work Experience Education – Vocational**  
300.00 hrs lab  
Units: 4.00  
Accepted For Credit: CSU  
Work experience education for students employed in jobs directly related to a major. Units are based on hours worked.  
(GC)

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**CONSUMER FAMILY SCIENCES**  
Division: Health Sciences and Environmental Studies

CFS-104A  **Current Issues in Child Nutrition**  
36.00 hrs lecture  
Units: 2.00  
Advisory: Eligible for ENGL-151B  
Accepted For Credit: CSU  
The role and requirements of nutrients for children are reviewed. Current issues regarding nutrition and feeding of children are discussed. Legislation regarding feeding of children is updated. The course is recommended for school food service, child care, WIC personnel, and parents.  
(GC)

CFS-106  **Food: The Chemicals We Eat**  
54.00 hrs lecture  
Units: 3.00  
Accepted For Credit: CSU  
This course introduces non-majors to the basics of chemicals present in food. A series of topics are discussed, which will integrate and elucidate the components of food by making use of the chemical, physical, and biological sciences. Beginning with the introduction to food as a chemical, students will learn about different kinds of foods and their properties. Students will also learn about food additives, coloring and flavoring agents. The Government’s role in assuring food quality will be examined. At the end of the course students will be able to recognize the information that is on a food label and be able to apply this knowledge to their well-being.  
(GR)

CFS-108  **Nutrition and Fitness**  
54.00 hrs lecture  
Units: 3.00  
Accepted For Credit: CSU  
This course reviews in depth the relationship between the nutrients and muscular performance. Food sources and meal plans for optimum performance, fitness, weight maintenance, weight loss, and weight gain are explored. The need for supplements and popular diets are evaluated.  
(GC)

CFS-109  **Nutrition**  
54.00 hrs lecture  
Units: 3.00  
Accepted For Credit: CSU & UC  
This course studies the concepts and applications of nutrition in health and disease. Essential nutrients and their functions, food sources, requirements, digestion, absorption, and metabolism are covered. This course is recommended for pre-nursing and other health majors.  
(GC)

CFS-195A1  **Work Experience Education – Vocational**  
75.00 hrs lab  
Units: 1.00  
Accepted For Credit: CSU  
Work experience education for students employed in jobs directly related to a major. Units received are based on hours worked.  
(GC)

CFS-195A2  **Work Experience Education – Vocational**  
150.00 hrs lab  
Units: 2.00  
Accepted For Credit: CSU  
Work experience education for students employed in jobs directly related to a major. Units received are based on hours worked.  
(GC)

CFS-195A3  **Work Experience Education – Vocational**  
225.00 hrs lab  
Units: 3.00  
Accepted For Credit: CSU  
Work experience education for students employed in jobs directly related to a major. Units received are based on hours worked.  
(GC)

CFS-195A4  **Work Experience Education – Vocational**  
300.00 hrs lab  
Units: 4.00  
Accepted For Credit: CSU  
Work experience education for students employed in jobs directly related to a major. Units received are based on hours worked.  
(GC)
DEAF PREPARATORY PROGRAM

Division: Deaf Studies

DEAF-116A  ESL Vocabulary I in American Sign Language
36.00 hrs lecture
Units: 2.00
Advisory: Basic ability to communicate in ASL
This course is the first of two basic vocabulary courses designed for students who are new to the United States or who wish to build their English vocabulary skills. Students will strengthen their understanding of words through thematic reading and interactive exercises; by studying word parts, synonyms, and antonyms; and by analyzing their meanings in various written contexts. Taught in ASL. Not applicable to associate degree. Repeatable = 3 times (GC)

DEAF-116B  ESL Vocabulary II in American Sign Language
36.00 hrs lecture
Units: 2.00
Advisory: Basic ability to communicate in ASL
This course is the second in two basic vocabulary courses designed for students who are new to the United States or who wish to build their English vocabulary skills. Students will strengthen their understanding of words through thematic reading and interactive exercises, by studying word parts, synonyms and antonyms, and by analyzing their meanings in various written contexts. Taught in ASL. Not applicable to associate degree. Repeatable = 3 times (GC)

DEAF-118A  ESL Writing I in American Sign Language
54.00 hrs lecture
Units: 3.00
Advisory: Basic ability to communicate in ASL
This course is the first course of a two-semester ESL writing program for Deaf students. This course introduces basic writing skills, emphasizing the structure of English sentences and paragraph development. It is designed for students whose native language is not English. Taught in ASL. Not applicable to associate degree. Repeatable = 3 times (GC)

DEAF-118B  ESL Writing II in American Sign Language
54.00 hrs lecture
Units: 3.00
Advisory: Basic ability to communicate in ASL
This course is the second course of a two-semester ESL writing program for Deaf students. This course further develops basic writing skills, emphasizing the structure of English sentences and paragraph and essay development. Designed for students whose native language is not English. Taught in ASL. Not applicable to associate degree. Repeatable = 3 times (GC)

DEAF-119A  ESL Reading I in American Sign Language
54.00 hrs lecture
Units: 3.00
Advisory: Basic ability to communicate in ASL
This course is the first course of a two-semester ESL reading program for Deaf students. This course is designed for students who are new to the United States or who wish to begin a basic study of English reading at a beginning ESL level, with an emphasis on fluency and vocabulary development. Taught in ASL. Not applicable to associate degree. Repeatable = 3 times (GC)

DEAF-119B  ESL Reading II in American Sign Language
54.00 hrs lecture
Units: 3.00
Advisory: Basic ability to communicate in ASL
This course is the second course of a two-semester ESL reading program for Deaf students. This course is designed for students who are new to the United States or who wish to continue a basic study of English reading at a beginning ESL level, with an emphasis on fluency and vocabulary development. Taught in ASL. Not applicable to associate degree. Repeatable = 3 times (GC)

DEAF-120A  Basic Grammar I
54.00 hrs lecture
Units: 3.00
Advisory: Fluency in ASL
This course is designed for students who wish to develop their English grammar skills through exposure and practice. Students will have opportunities to learn basic grammar rules through interactive exercises and studying sentence parts and writing sentences. Not applicable to associate degree. Repeatable = 5 times (GR)

DEAF-120B  Basic Grammar II
54.00 hrs lecture
Units: 3.00
Advisory: DEAF-120A
This course is designed for students who wish to develop their English grammar skills through exposure and practice. Students will have opportunities to learn basic grammar rules through interactive exercises and studying sentence parts and writing sentences. Not applicable to associate degree. Repeatable = 3 times (GC)

DEAF-121A  Intermediate Grammar I
54.00 hrs lecture
Units: 3.00
Advisory: DEAF-120A and DEAF-120B
This course is designed for Deaf/Hard of Hearing students who wish to further develop their grammar skills through practice and application. Students will have opportunities to learn grammar rules through interactive exercises and studying sentence parts and writing sentences. Taught in ASL only. Not applicable to associate degree. Repeatable = 3 times (GC)

DEAF-121B  Intermediate Grammar II
54.00 hrs lecture
Units: 3.00
Advisory: DEAF-121A
This course is designed for Deaf/Hard of Hearing students who wish to continue to develop their grammar skills through practice and application. They will have opportunities to apply grammar rules through interactive exercises, studying sentence parts, and writing sentences. Taught in ASL only. Not applicable to associate degree. Repeatable = 5 times (GR)
DEAF-130A  Literacy I
54.00 hrs lecture
Units: 3.00
Advisory: Fluency in ASL
The focus of this course is on development of practical reading and practical language skills in applied settings. This course is the first of a two-semester English Literacy program for Deaf and Hard of Hearing students. The emphasis is on increased practical reading skills and vocabulary. Taught in ASL. Not applicable to associate degree. Repeatable = 5 times (GC)

DEAF-130B  Literacy II
54.00 hrs lecture
Units: 3.00
Advisory: DEAF-130A; fluency in ASL
The focus of this course is on development of practical reading and practical language skills in applied settings. This course is the second semester of a two-semester English Literacy program for Deaf and Hard of Hearing students. The emphasis is on increased practical reading skills and vocabulary. Taught in ASL only. Not applicable to associate degree. Repeatable = 5 times (GC)

DEAF-131A  Intermediate Literacy I
54.00 hrs lecture
Units: 3.00
Advisory: DEAF-130A/B; DEAF-120A/B
This course is the first of two courses designed for Deaf/Hard of Hearing students who wish to increase vocabulary and expand knowledge about various topics related to the world in which we live. The course will also promote practice in reading. Taught in ASL only. Not applicable to associate degree. Repeatable = 5 times (GR)

DEAF-131B  Intermediate Literacy II
54.00 hrs lecture
Units: 3.00
Advisory: DEAF-130A/B; DEAF-120A/B
This course is the second of two courses designed for Deaf and Hard of Hearing students who wish to further increase vocabulary and knowledge about various topics related to real world. The course will also promote practice in reading. Not applicable to associate degree. Repeatable = 5 times (GR)

DEAF-140A  Lifeskills Mathematics I
36.00 hrs lecture
Units: 2.00
Advisory: ASL Fluency
This course provides students with real world application of basic math skills in the areas of money management, banking, and consumerism. This is the first part of a two-semester course. Taught in ASL only. Not applicable to associate degree. Repeatable = 5 times (GR)

DEAF-140B  Lifeskills Mathematics II
36.00 hrs lecture
Units: 2.00
Advisory: DEAF-140A; fluency in ASL
This course provides students with real world application of basic math skills in the areas of money management, banking, consumerism, and employment. This is the second part of a two-semester course. Taught in ASL only. Not applicable to associate degree. Repeatable = 5 times (GR)

DEAF-141A  Workplace Communication I
54.00 hrs lecture
Units: 3.00
Advisory: ASL fluency
This course focuses on workplace communication skills for employment preparation. Emphasis will be on both written and signed communication with hearing co-workers and supervisors. Taught in ASL only. Not applicable to associate degree. Repeatable = 5 times (GR)

DEAF-141B  Workplace Communication II
54.00 hrs lecture
Units: 3.00
Advisory: DEAF-141A; ASL fluency
This course is taught in continuation of workplace communication skills for employment preparation. Emphasis will be on both written and signed communication with hearing co-workers and supervisors. Taught in ASL only. Not applicable to associate degree. Repeatable = 5 times (GR)

DEAF-143  Deaf Vocational Awareness
18.00 hrs lecture, 54.00 hrs lab
Units: 2.00
Advisory: DEAF-145B
This course provides deaf students opportunities to visit and tour a variety of Bay Area businesses. Students will learn to contact employers by using an interpreter on the phone to set up the field trips. While touring the work site students will apply practical informational interviewing skills using an interpreter for communication purposes to gather facts about work requirements, job duties, application procedures, and employment protocol. Taught in ASL only. Not applicable to associate degree. Repeatable = 5 times (GR)

DEAF-145B  Job Seeking Strategies for Deaf Students
54.00 hrs lecture
Units: 3.00
Advisory: ASL Fluency
This course allows student job seekers to evaluate their own interests, skills, and aptitudes and relate them to employment. Students will develop strategies and practice specific skills necessary for a successful job hunt to result in gainful employment. Taught in ASL only. Not applicable to associate degree. Repeatable = 5 times (GR)

DEAF-146  Work Experience Seminar
36.00 hrs lecture
Units: 2.00
Advisory: DEAF-195A; ASL fluency
Designed for students to get training while having their work experience class at Ohlone College. Taught in ASL only. Not applicable to associate degree. Repeatable = 5 times (GR)

DEAF-147A  Citizenship: Introduction
54.00 hrs lecture
Units: 3.00
This course is the first of four courses designed for Deaf/Hard of Hearing students who need to develop pre-employment readiness. Taught in ASL only. Not applicable to associate degree. Repeatable = 5 times (GR)

DEAF-147B  Citizenship: One’s Role
54.00 hrs lecture
Units: 3.00
Prerequisite: DEAF-147A
This course is the second of four courses in the Direct Employment Program designed for Deaf/Hard of Hearing students who need to develop next level of skills in job readiness. Taught in ASL only. Not applicable to associate degree. Repeatable = 5 times (GR)

DEAF-148  Community Service
18.00 hrs lecture, 54.00 hrs lab
Units: 2.00
This course will focus on the concept and experience of community service and provide hands-on-community-based learning experience. The course will introduce the definition and importance of community service and volunteerism, and their importance in career development, and will address safe practices in new environments and using tools. Performance expectations will be applied to community service participation. Taught in ASL only. Not applicable to associate degree. Repeatable = 5 times (GR)
DEAF-157A  English Composition Techniques  
54.00 hrs lecture  
Units: 3.00  
Advisory: Fluency in ASL  
This course is the first of two courses with strong emphasis on refinement of English composition skills as applied through paragraph and essay development. Students are exposed to a variety of well-written essays and guided through an analysis of structure, content, and style. Taught in ASL only. Not applicable to associate degree. Repeatable = 2 times (GR)

DEAF-157B  Principles of Composition  
54.00 hrs lecture  
Units: 3.00  
Advisory: Fluency in ASL  
This course is the second of two courses with a strong emphasis on refinement of English composition skills as applied through paragraph and essay development. Students are exposed to a variety of well-written paragraphs and essays and guided through an analysis of structure, content, and style. Taught in ASL only. Not applicable to associate degree. Repeatable = 2 times (GR)

DEAF-159A  Reading Strategies  
54.00 hrs lecture  
Units: 3.00  
Prerequisite: Fluency in ASL  
This course is the first of two courses with an emphasis on introduction to reading and study techniques. Students learn various skills to analyze a variety of readings including essays and news articles. This course is designed to prepare students for more extensive courses in reading. Taught in ASL only. Not applicable to associate degree. Repeatable = 2 times (GR)

DEAF-159B  Reading Techniques  
54.00 hrs lecture  
Units: 3.00  
Advisory: Fluency in ASL  
This course is the second of two courses with an emphasis on introduction to reading and study techniques. Students learn various skills to analyze a variety of readings including essays and news articles. This course is designed to prepare students for more extensive courses in reading. Taught in ASL only. Not applicable to associate degree. Repeatable = 2 times (GR)

DEAF-160A  Personal and Social Awareness I  
36.00 hrs lecture  
Units: 2.00  
Advisory: ASL Fluency  
This is a practical course designed to explore issues relevant to Deaf college students. Group activities will focus on personal challenge and growth. Taught in ASL only. Not applicable to associate degree. Repeatable = 5 times (GR)

DEAF-160B  Personal and Social Awareness II  
36.00 hrs lecture  
Units: 2.00  
Prerequisite: Deaf students only; DEAF-160A  
This is a continuation of DEAF-160A and is designed to explore issues relevant to Deaf college students. Group activities will focus on personal challenge and growth. Taught in ASL only. Not applicable to associate degree. Repeatable = 5 times (GR)

DEAF-161  Introduction to the Deaf Community  
54.00 hrs lecture  
Units: 3.00  
Advisory: ASL Fluency  
This is a basic course on the culture of American Deaf people. Cultural norms of Deaf people are examined and current issues within the Deaf community are discussed. Community resources are presented. Taught in ASL. Not applicable to associate degree. Repeatable = 5 times (GR)

DEAF-165  Study Techniques: MS Word, MS Excel, and MS Access  
36.00 hrs lecture, 54.00 hrs lab  
Units: 3.00  
Prerequisite: Fluency in ASL  
Introductory use of Microsoft Word, Microsoft Excel, and Microsoft Access to prepare students for college-level work. Taught in ASL only. Not applicable to associate degree. Repeatable = 5 times (GR)

DEAF-166  Study Techniques: Introduction to Multimedia Photoshop, MS PowerPoint, and MS Publisher  
36.00 hrs lecture, 54.00 hrs lab  
Units: 3.00  
Advisory: Fluency in ASL, DEAF-165  
Introductory course in the use of PhotoShop, Microsoft PowerPoint, MS Publisher, and use of digital camera to prepare students for college-level work. Taught in ASL only. Not applicable to associate degree. Repeatable = 5 times (GR)

DEAF-175A  IUPP Grammar I  
54.00 hrs lecture  
Units: 3.00  
This course is designed for students who already have an intermediate to advanced knowledge of English sentence structure but who need further refinement of grammar and other language skills. Taught in ASL. Not applicable to associate degree. Repeatable = 3 times (GC)

DEAF-175B  IUPP Grammar II  
54.00 hrs lecture  
Units: 3.00  
This course is designed for students who have successfully completed DEAF-175A and wish to continue to strengthen and refine their grammar skills. Taught in ASL only. Not applicable to associate degree. Repeatable = 3 times (GC)

DEAF-176A  Academic Vocabulary I  
36.00 hrs lecture  
Units: 2.00  
Advisory: ASL fluency  
This course is the first of two courses designed for students who wish to improve their vocabulary through exposure to words found in academic coursework. Students will strengthen their understanding of words through thematic reading and interactive exercises, by studying word parts, synonyms, and analogies, and by analyzing their meanings in various written contexts. Taught in ASL only. Not applicable to associate degree. Repeatable = 3 times (GR)

DEAF-176B  Academic Vocabulary II  
36.00 hrs lecture  
Units: 2.00  
Advisory: ASL fluency  
This course is the second of two courses designed for students who wish to improve their vocabulary through exposure to words found in academic coursework. Students will strengthen their understanding of words through thematic reading and interactive exercises, by studying word parts, synonyms and antonyms, and analogies, and by analyzing their meanings in various written contexts. Taught in ASL only. Not applicable to associate degree. Repeatable = 3 times (GR)
DEAF-188A  Intensive University Preparation – Academic Writing I
72.00 hrs lecture
Units: 4.00
Advisory: ASL fluency
This course is the first course in a three-semester program in writing with an emphasis on composition, critical reading skills, and the development of natural English expression. This course reviews the fundamentals of paragraph development and focuses on reading critically and writing well-developed and well-organized paragraphs and essays. The course is designed to prepare students who are fluent in ASL for college-level English composition and academic course work. Taught in ASL only. Not applicable to associate degree. Repeatable = 3 times (GR)

DEAF-188B  Intensive University Preparation – Academic Writing II
72.00 hrs lecture
Units: 4.00
Advisory: ASL fluency
This course is the second course in a three-semester program in writing with an emphasis on composition, critical reading skills, and the development of natural English expression. This course reviews the fundamentals of essay development and focuses on reading critically and writing well-developed and well-organized paragraphs and essays. The course is designed to prepare students who are fluent in ASL for college-level English composition and academic course work. Taught in ASL only. Not applicable to associate degree. Repeatable = 3 times (GR)

DEAF-188C  Intensive University Preparation – Academic Writing III
72.00 hrs lecture
Units: 4.00
Prerequisite: ASL fluency
This course is the third course in a three-semester program in writing with an emphasis on composition, critical reading skills, and the development of natural English expression. This course reviews the fundamentals of paragraph development and focuses on reading critically and writing well-developed, well-organized essays. The course is designed to prepare students who are fluent in ASL for college-level English composition and academic course work. Taught in ASL only. Not applicable to associate degree. Repeatable = 3 times (GR)

DEAF-189A  Intensive University Preparation – Academic Reading I
54.00 hrs lecture
Units: 3.00
Advisory: ASL fluency
This course is the first course of a three-semester academic reading program. This course provides an introduction to reading and study techniques. Students learn to analyze, annotate, and summarize a variety of readings including essays, news articles, and textbook chapters. The course is designed to prepare students for college-level course work. Taught in ASL only. Not applicable to associate degree. Repeatable = 3 times (GR)

DEAF-189B  Intensive University Preparation – Academic Reading II
54.00 hrs lecture
Units: 3.00
Advisory: ASL fluency
DEAF-189B is the second course of a three-semester reading program. This course focuses on improvement of reading and study skills. Students analyze, annotate, and summarize readings of greater length and complexity. The course is designed to prepare students for college-level course work. Taught in ASL only. Not applicable to associate degree. Repeatable = 3 times (GR)

DEAF-189C  Intensive University Preparation – Academic Reading III
54.00 hrs lecture
Units: 3.00
Advisory: ASL fluency
DEAF-189C is the third course of a three-semester reading program. This course focuses on strengthening of reading and research skills. Students analyze, annotate, and summarize readings of increasing length and complexity. The course is designed to prepare students for college-level course work. Taught in ASL only. Not applicable to associate degree. Repeatable = 3 times (GR)

DEAF-191  Human Potential Seminar
36.00 hrs lecture
Units: 2.00
Prerequisite: Limited to Deaf students only
This practical course is specifically designed to meet the personal growth needs of Deaf students finding their place as Deaf adults in a hearing society. Emphasis will be on issues encountered in everyday life. Group and individual activities will encourage self-exploration and awareness, values clarification, conscious choice, decision making, and interpersonal communication. Taught in ASL only. Not applicable to associate degree. Repeatable = 5 times (GR)

DEAF-195A2  Work Experience Education – Vocational
150.00 hrs lab
Units: 2.00
Work experience education for students employed in jobs directly related to a major. Units received are based on hours worked. Repeatable = 5 times (GC)

DEAF-195A3  Work Experience Education – Vocational
225.00 hrs lab
Units: 3.00
Work experience education for students employed in jobs directly related to a major. Units received are based on hours worked. (GC) Repeatable = 5 times (GC)

DEAF-195A4  Work Experience Education – Vocational
300.00 hrs lab
Units: 4.00
Work experience education for students employed in jobs directly related to a major. Units received are based on hours worked. (GC) Repeatable = 5 times (GC)

DEAF-311  Introduction to American Deaf Culture
54.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-151B, ENGL-163; ASL fluency
Accepted For Credit: CSU; Gallaudet
Introduction to the social, cultural, and sociolinguistic characteristics of Deaf people. Taught in ASL. Repeatable = 5 times (GC)
DEAF -312  Linguistics of ASL
54.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-151B, ENGL-163; ASL fluency
Accepted For Credit: CSU
This is an introduction to the language of American Deaf people. Grammar, morphology, phonology, and semantics of American Sign Language are covered. Taught in ASL. Repeatable = 5 times (GR)

DEAF -330  Educating the Deaf
54.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-151B, ENGL-163; ASL fluency
Accepted For Credit: CSU
This course has been designed to provide the student with a general orientation to Deaf/deaf education. The course provides an overview of the historical, philosophical, and social aspects of Deaf education. The course analyzes the impact of Deaf education on hearing families. In addition, it provides an orientation to problems, issues, research, legislation, and current trends in the field of education of the Deaf. Repeatable = 5 times (GR)

DEAF -331  Counseling the Deaf
54.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-151B, ENGL-163; ASL fluency
Accepted For Credit: CSU
This course is designed to provide students with skills that are needed to work with deaf students in a school setting. Taught in ASL. Repeatable = 5 times (GR)

DEAF -332  Development of the Deaf Child
54.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-151B, ENGL-163; ASL fluency
Accepted For Credit: CSU
This course provides students with an overview of child development theories as they relate to the Deaf experience. Taught in ASL. Repeatable = 5 times (GR)

DEAF -343  Field Work in Deaf Education
162.00 hrs lab
Units: 3.00
Prerequisite: Enrollment in the Deaf Education Certification Program
Advisory: Eligible for ENGL-151B, ENGL-163
This course is designed to provide Deaf Education students with hands-on experience in a deaf school setting. A weekly seminar is included for group discussion of practicum experience. Taught in ASL. Repeatable = 5 times (GR)

DEAF -365  Supervised Tutoring
180.00 hrs lab
Units: 0.00
Prerequisite: Instructor or counselor referral
This course provides students with individualized tutoring. It assists students to develop a learning methodology in a subject. It includes diagnosis and consultation with tutorial coordinator and supervised tutoring by part-time instructional aides and/or student tutors. Not applicable to associate degree. Repeatable = 5 times (NG)

ECS-195A1  Work Experience Education – Vocational
75.00 hrs lab
Units: 1.00
Accepted For Credit: CSU
Work experience education for students employed in jobs directly related to a major. Units received are based on hours worked. (GC)

ECS-195A2  Work Experience Education – Vocational
150.00 hrs lab
Units: 2.00
Accepted For Credit: CSU
Work experience education for students employed in jobs directly related to a major. Units are based on hours worked. (GC)

ECS-195A3  Work Experience Education – Vocational
225.00 hrs lab
Units: 3.00
Accepted For Credit: CSU
Work to a major. Units receive are based on hours worked. (GC)

ECS-195A4  Work Experience Education – Vocational
300.00 hrs lab
Units: 4.00
Accepted For Credit: CSU
Work experience education for students employed in jobs directly related to a major. Units received are based on hours worked. (GC)

ECS-300  Principles and Practices of Teaching Young Children
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Advisory: Eligible for ENGL-101A
Accepted For Credit: CSU
An examination of the underlying theoretical principles of developmentally appropriate practices applied to programs, environments, emphasizing the key role of relationships, constructive adult-child interactions, and teaching strategies in supporting physical, social, creative and intellectual development for all children. This course includes a review of the historical roots of early childhood programs and the evolution of the professional practices promoting advocacy, ethics and professional identity. (GR) C-ID ECE 120

ECS-301  Childhood Growth and Development
54.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-101A; ECS-300 and ECS-304
Accepted For Credit: CSU & UC
This course examines the major physical, psychosocial, and cognitive/language developmental milestones for children, both typical and atypical, from conception through adolescence. There will be an emphasis on interactions between maturational processes and environmental factors. While studying developmental theory and investigative research methodologies, students will observe children, evaluate individual differences, and analyze characteristics of development at various stages. (GR)
ECS-302 Introduction to Curriculum
72.00 hrs lecture
Units: 4.00
Advisory: Eligible for ENGL-101A; ECS-300 and ECS-301
Accepted For Credit: CSU

This course is an overview of the application of principles of human growth and development to individual issues in early childhood educational programs including appropriate play, aesthetic and learning experiences including program content, use of materials and equipment, planning and guidance of assessment and documentation. (GR)

ECS-303 Child, Family, and Community
54.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-101A; ECS-300 or ECS-301
Accepted For Credit: CSU

An examination of the developing child in a societal context focusing on the interrelationship of family, school and community and emphasizing historical and socio-cultural factors. The processes of socialization and identity development will be highlighted, showing the importance of respectful, reciprocal relationships that support and empower families. (GR) C-ID CDEV 110

ECS-304 Observation and Assessment of Children
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Advisory: Eligible for ENGL-101A; ECS-300, ECS-301
Accepted For Credit: CSU

This course focuses on the appropriate use of assessment and observation strategies to document development, growth, play and learning to join with families and professionals in promoting children’s success. Recording strategies, rating systems, portfolios, and multiple assessment tools are explored. (GR) C-ID ECE 200

ECS-305 Health Safety and Nutrition
54.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-101A; ECS-300
Accepted For Credit: CSU

Introduction to the laws, regulations, standards, policies and procedures and early childhood curriculum related to child health safety and nutrition. The key components that ensure physical health, mental health and safety for both children and staff will be identified along with the importance of collaboration with families and health professionals. Focus on integrating the concepts into everyday planning and program development for all children. (GR) C-ID ECE 220

ECS-306 Guidance and Discipline of Young Children
54.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-101A
Accepted For Credit: CSU

The principles of positive guidance and discipline based on contemporary research and child development will be discussed in this course. Application of the principles of effective communication, understanding child development and behavior, appropriate limits and rules, structuring problem solving, and consequences will be discussed. This course is appropriate for teachers and parents. (GC)

ECS-307A4 Practicum – Field Experience
54.00 hrs lecture, 108.00 hrs lab
Units: 4.00
Advisory: Eligible for ENGL-101A; ECS-300; ECS-302
Accepted For Credit: CSU

A demonstration of developmentally appropriate early childhood teaching competencies under guided supervision. Students will utilize practical classroom experiences to make connections between theory and practice, develop professional behaviors, and build a comprehensive understanding of children and families. Child centered, play-oriented approaches to teaching, learning, and assessment; and knowledge of curriculum content areas will be emphasized as student teachers design, implement and evaluate experiences that promote positive development and learning for all young children. (GR)

ECS-307B4 Intermediate Practicum – Field Work
36.00 hrs lecture, 108.00 hrs lab
Units: 4.00
Prerequisite: ECS-307A4
Advisory: ECS-300
Accepted For Credit: CSU

This course continues direct experience working with and observing young children. Students will plan, implement, and evaluate program components and activities for young children. Students must complete this course in the Ohlone Child Lab. Students will perform the competencies of a teacher. (GR)

ECS-307C4 Practicum – Field Experience Children in the Child Lab
36.00 hrs lecture, 108.00 hrs lab
Units: 4.00
Prerequisite: ECS-307A4, ECS-307B4
Advisory: ENGL-101A, ECS-300
Accepted For Credit: CSU

This course offers direct experience working with and observing young children. Students will be trained in the planning, implementing, and evaluating of program components and activities for young children. Students must complete this course in the Ohlone Child Care Lab. Student will perform the competencies of a Head Teacher/Site Director. (GR)

ECS-308 Administration of Programs for Young Children
54.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-101A; ECS-300, ECS-301, ECS-302
Accepted For Credit: CSU

This course covers principles in organization and management of preschools and childcare centers. Subject matter includes program planning, organization, budgeting, personnel, records, relationships with community resources, regulatory agencies, and working with parents. The legal requirements for operating programs for young children in California provide a framework for course work. (GR)

ECS-309 Teaching in a Diverse Society
54.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-101A
Accepted For Credit: CSU

Examination of the development of social identities in diverse societies including theoretical and practical implications of oppression and privilege as they apply to young children, families, programs, classrooms and teaching. Various classroom strategies will be explored emphasizing culturally and linguistically appropriate anti-bias approaches supporting all children in becoming competent members of a diverse society. Course includes self-examination and reflection on issues related to social identity, stereotypes and bias, social and educational access, media and schooling. (GR) C-ID ECE 230
ECS-310  **Music and Movement Curriculum for Young Children**
54.00 hrs lecture  
Units: 3.00  
Advisory: ECS-300, ECS-301, ECS-302, ENGL-101A  
Accepted For Credit: CSU  
This course provides a survey of music, materials, and movement activities for young children (2-10 years). Students learn effective techniques for using songs, rhythm, instruments, creative dance, and games. The use of a variety of musical media and props will be demonstrated. Repeatable = 1 time (GR)

ECS-311  **Art for the Young Child**
54.00 hrs lecture  
Units: 3.00  
Advisory: Eligible for ENGL-101A; ECS-300, ECS-301, ECS-302  
Accepted For Credit: CSU  
This course includes practice in using age-appropriate methods with commonly available creative art media for children of various developmental stages, infancy through eight years old. Students learn to make, collect, and use various materials to develop an understanding of how art expression and skills change as children mature. Evaluation and appreciation of art activities as opportunities for self-expression and sensory stimulation will be explored. Repeatable = 1 time (GR)

ECS-312  **The Development of Literacy in Early Childhood Education**
54.00 hrs lecture  
Units: 3.00  
Advisory: Eligible for ENGL-101A  
Accepted For Credit: CSU  
This course examines how children gain oral language and listening skills leading to the development of writing and reading. It will include curriculum development for an emergent literacy environment. (GR)

ECS-313  **Science and Math Curriculum for Young Children**
54.00 hrs lecture  
Units: 3.00  
Advisory: ENGL-101A and ECS-301  
Accepted For Credit: CSU  
This course provides guidelines for preparing math and science curriculum for the young child. Math and science interrelationships will be explored, as well as gender differences, current research, and the use of hands-on approach. Repeatable = 1 time (GR)

ECS-314  **Literature for the Young Child**
54.00 hrs lecture  
Units: 3.00  
Advisory: ENGL-101A and ECS-312  
Accepted For Credit: CSU  
This course provides an in-depth experience with literature for children ages 0-8. The course introduces students to the development of reading in young children, their interests, diversity and reading skill levels of young children. Content to be covered includes the historical development of children's literature, effective techniques used to introduce literature, books, poetry, other reading media, storytelling and reading to children. Students will learn how to extend literature into other curriculum areas. (GR)

ECS-316  **Children with Special Needs in Programs for Young Children**
54.00 hrs lecture  
Units: 3.00  
Advisory: Eligible for ENGL-101A  
Accepted For Credit: CSU  
The course focuses on recognizing and distinguishing the variety of special needs exhibited by children 0 through 12 years. Factors affecting and contributing to the causes and needs of these children will be explored, including genetic, environmental, physical, cognitive, and social. (GR)

ECS-317  **Infant and Toddler Development and Care**
36.00 hrs lecture, 54.00 hrs lab  
Units: 3.00  
Prerequisite: ECS-301  
Accepted For Credit: CSU  
Students will study infant and toddlers' physical growth, social adjustment, and the psychological and social roots from which children develop. Students practice planning environments and equipment selection, health, safety, caregiving routines, and communication skills in group settings, working with infants and toddlers. (GR)

ECS-320  **Introduction to Family Child Care Homes**
18.00 hrs lecture  
Units: 1.00  
This course will cover the operation of child care in a home setting. Topics will include home setup, business practices and policies, program planning, parent relations, and communications. California licensing regulations will be covered. Not applicable to associate degree. (CR)

ECS-321  **Supervision in Early Childhood Programs**
54.00 hrs lecture  
Units: 3.00  
Prerequisite: ECS-300, ECS-301, and ECS-303  
Accepted For Credit: CSU  
This course covers group dynamics, supervision of staff and parents, development of motivation and morale, leadership skills, and functions of personnel. It includes interviews, interpersonal and group conflict resolution, staff evaluations, and working with parents and boards. It is designed to provide knowledge and methods for those working in supervisory capacities in early childhood programs. (GR)

ECS-322  **Mentoring and Supervision in Early Childhood Programs**
36.00 hrs lecture  
Units: 2.00  
Advisory: ECS-302, ECS-308; eligible for ENGL-101A  
Accepted For Credit: CSU  
This course is a study of the methods and principles of supervising student teachers, assistant teachers, parents, and volunteers in early childhood education programs. Emphasis is on the role of master teachers who function as both supervisors and mentors while addressing the needs of children, parents, and other staff. (GR)

ECS-323  **Advanced Training in Infant-Toddler Care**
54.00 hrs lecture  
Units: 3.00  
Prerequisite: ECS-300, ECS-301, ECS-317  
Accepted For Credit: CSU  
Advanced ECS students will study infant/toddler growth and development in all domains. Specific consideration will be given to planning environments, recognizing and diagnosing delays, relationships with parents, effect of nurturing, and the group setting on very young children. Repeatable = 1 time (GR)
ECS-324  Parenting  
54.00 hrs lecture  
Units: 3.00  
Advisory: Eligible for ENGL-151B  
Accepted For Credit: CSU  
This introductory course is an exploration of the role and relationships involved in parenting. It explores the historical context and changes in perceptions and responsibilities assigned to parents in American society. Topics include history of parenting, parenting styles, beliefs and values, skills and methods, relationships, and basic child development. Repeatable = 1 time (GR)

ECS-325A  Workshop Series for Parents and Teachers  
9.00 hrs lecture  
Units: 0.50  
This course is a workshop for parents and teachers covering specific topics in the field of Early Childhood Studies. The theme and content varies and is determined by the Early Childhood Studies instructors. Not applicable to associate degree. Repeatable = 3 times (CR)

ECS-327  School Age Child Development  
54.00 hrs lecture  
Units: 3.00  
Advisory: ECS-301, ECS-302, ENGL-101A  
Accepted For Credit: CSU  
This course is the study of the developing child during the school-age years. It focuses on the developmental characteristics; influences on development; individual differences; physical, social-emotional, cognitive, and creative development. It examines the role of the teacher in programs designed for the school-age child. (GR)

ECS-328  Curriculum for the School Age Child  
54.00 hrs lecture  
Units: 3.00  
Prerequisite: ECS-301 and ECS-302  
Advisory: Eligible for ENGL-101A  
Accepted For Credit: CSU  
This course studies the fundamentals of planning, implementing, and evaluating curriculum for programs serving school-age children and their families. The emphasis is on developing and providing age appropriate activities, environment, and relationships in the context of an integrated and active curriculum. (GR)

ECS-329  Early Childhood Director's Seminar  
36.00 hrs lecture  
Units: 2.00  
Prerequisite: ECS Certificate of Achievement  
Advisory: Current employment as Director/Administrator  
Accepted For Credit: CSU  
This course provides on-going professional support, information, and resources for students who are currently administering Early Childhood Programs. A combination of dialogue, professional guest speakers, exposure to community resources, network building activities, current information on research, trends, and issues of the field will contribute to the student's competence, performance, and effectiveness in his/her supervisor role. Repeatable = 3 times (GC)

ECS-330  Second Helping for Family Childcare Providers  
36.00 hrs lecture  
Units: 2.00  
Prerequisite: ECS-320, 18 months experience in a licensed program  
This is the second course for Family Childcare Providers. It covers the role of the provider, the task of managing, relationships between caregivers and parents, and providing environments for children. Repeatable = 1 time (GC)
ENGI-101  Introduction to Engineering  
36.00 hrs lecture, 54.00 hrs lab  
Units: 3.00  
Advisory: Eligible for ENGL-151B and ENGL-163  
Accepted For Credit: CSU & UC  
This course explores the field of engineering and its different branches. It provides hands-on design projects including experimentation, team work, ethics, and the application of basic scientific principles to practical situations. (GC)

ENGI-130  Electric Circuit Analysis  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Prerequisite: MATH-101B and PHYS-141  
Advisory: Eligible for ENGL-151B and ENGL-163  
Accepted For Credit: CSU & UC  
This course is a study of DC and AC linear circuits and transient and steady state analysis. Experimental techniques, instrumentation, and circuit simulation will be covered in the lab. (GR)

ENGI-135  Introduction to Robotics and Automated Systems  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Cross-referenced Course: CNET-115  
Accepted For Credit: CSU  
Students who take this class will understand how scientific innovation can affect their lives either directly or indirectly. The class will teach students the principles of scientific methodology as it is applied to solving problems. The application of this scientific method will be used to navigate an abundance of technical information – to obtain the information, to understand the information, and to determine how to apply it. This course describes the functional hardware and software components of Automated Systems. The student will experience how scientific principles are applied by building and programming robots. The emphasis is for students to learn science by actually doing science. Repeatable = 3 times (GC)

ENGI-140  Materials Engineering  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Prerequisite: CHEM-101A and PHYS-140  
Accepted For Credit: CSU & UC  
This course covers atomic and crystal structures; imperfections; diffusion and relation between microstructure; the properties of engineering materials such as metals, polymers, ceramics and composites; phase equilibrium and transformations; mechanical, electrical, thermal, magnetic and optical properties; corrosion; and material degradation. (GC)

ENGI-195A1  Work Experience Education – Vocational  
75.00 hrs lab  
Units: 1.00  
Accepted For Credit: CSU  
Work experience education for students employed in jobs directly related to a major. Units received are based on hours worked. (GC)

ENGI-195A2  Work Experience Education – Vocational  
150.00 hrs lab  
Units: 2.00  
Accepted For Credit: CSU  
Work experience education for students employed in jobs directly related to a major. Units received are based on hours worked. (GC)

ENGI-195A3  Work Experience Education – Vocational  
225.00 hrs lab  
Units: 3.00  
Accepted For Credit: CSU  
Work experience education for students employed in jobs directly related to a major. Units received are based on hours worked. (GC)

ENGI-195A4  Work Experience Education – Vocational  
300.00 hrs lab  
Units: 4.00  
Accepted For Credit: CSU  
Work experience education for students employed in jobs directly related to a major. Units received are based on hours worked. (GC)
ENGINEERING TECHNOLOGY
Division: Science, Engineering, and Mathematics

ETEC-106  Electronics for Technology
36.00 hrs lecture, 54.00 hrs lab
Units: 3.00
Advisory: Knowledge of basic algebra and trigonometry relationships
Accepted For Credit: CSU
This class is an introduction to electricity and electronic devices. Students will learn the basic theory of electricity and apply that knowledge to build, test, and troubleshoot electrical circuits. In the lab, students will learn to operate the test and measurement instrumentation necessary to support construction of electrical circuits. (GR)

ETEC-107  Properties of Materials
4.50 hrs lecture, 13.50 hrs lab
Units: 0.50
Advisory: MATH-151
Accepted For Credit: CSU
This course surveys materials, properties, and applications for technicians. Topics will include a brief introduction to the properties of metals, polymers, ceramics, and composites. (GR)

ENGLISH
Division: Language and Communication

ENGL-101A  Reading and Written Composition
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Prerequisite: ENGL-151B and ENGL-163, or appropriate skill level demonstrated through the placement test process
Accepted For Credit: CSU & UC
This course focuses on reading and writing of expository and argumentative works and introduction to research skills and documentation to develop students’ ability to think critically and advocate ideas forcefully and accurately. Students will increase practical fluency by developing sentence, paragraph, thesis, and essay writing skills. (GR)

ENGL-101B  Reading and Composition (Introduction to Literature)
72.00 hrs lecture
Units: 4.00
Prerequisite: ENGL-101A
Accepted For Credit: CSU & UC
Students will read and evaluate literature in a critical, logical way. The emphasis will be upon critical analysis of literary works (novels, short story, poetry, and drama) and upon the students’ development of an appreciation of literature. (GR)

ENGL-101C  Critical Thinking and Composition
54.00 hrs lecture
Units: 3.00
Prerequisite: ENGL-101A
Accepted For Credit: CSU & UC
Students will learn critical thinking skills and use them to read and evaluate essays in a precise, logical way. The emphasis will be upon critical analysis and upon the students’ development of effective, written arguments. (GR)

ENGL-104  The Short Story
54.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-101A
Accepted For Credit: CSU & UC
Students read and discuss a wide variety of short stories. The short story is seen as a reflection of historical and contemporary concerns, as a happy entertainment alternative to television, and as a traditional and experimental literary form. (GC)

ENGL-106  Censorship and Literature
54.00 hrs lecture
Units: 3.00
Cross-referenced Course: JOUR-106
Advisory: Eligible for ENGL-101A
Accepted For Credit: CSU & UC
This literature course focuses on the issues of censorship and obscenity. Selected works will be closely examined in an attempt to encourage students to formulate their own standards in this controversial area. (GC)

ENGL-107  Literature and Film
54.00 hrs lecture
Units: 3.00
Advisory: ENGL-101A
Accepted For Credit: CSU & UC
“Lights, camera, action!” Hundreds of works of literature have been made into films, with varying degrees of success. If you’ve ever been disappointed (or thrilled) by the film version of a book you’ve read, you know that film adaptations range from “two thumbs way up” to “had me gagging on my popcorn.” This course will examine the relationships between literature and film, comparing and contrasting the two media. (GC)
ENGL-108 Writing Short Fiction
54.00 hrs lecture
Units: 3.00
Prerequisite: ENGL-110A
Accepted For Credit: CSU & UC
This course will review the fundamentals of fiction writing, provide an in-depth study of intermediate short fiction writing techniques, and offer exercises designed to stimulate creativity.

ENGL-109 The Graphic Novel
54.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-101A
Accepted For Credit: CSU & UC
This course presents graphic novels and related literature genres by and about characters from various ethnic, cultural, socio-economic, historical, and geo-political backgrounds. These graphic novels will be analyzed with a focus on language, art, design, ideology, substance, and content in order to explore the genre of the graphic novel as an art form and literature form as well as to recognize the undercurrent of themes running through this form of literature. Studying the artists’ works and examining the historical, social, psychological, and cultural forces shaping the literary and artistic form of the graphic novel will allow students to become aware of this genre of literature as a unique contribution to the study of literature and art. (GC)

ENGL-110A Beginning Creative Writing
54.00 hrs lecture
Units: 3.00
Advisory: ENGL-101A
Accepted For Credit: CSU & UC
This course includes experimentation with creative principles such as fiction, non-fiction, drama, and poetry, and a critical analysis of the student’s work. (GC)

ENGL-110B Intermediate Creative Writing
54.00 hrs lecture
Units: 3.00
Prerequisite: ENGL-110A
Advisory: ENGL-101A
Accepted For Credit: CSU & UC
This course provides students the opportunity to experiment with creative principles such as fiction, non-fiction, drama, and poetry, and a critical analysis of student’s work. (GC)

ENGL-112 Modern Fiction
54.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-101A
Accepted For Credit: CSU & UC
The themes of love and sexuality, family conflict, coming of age, and the individual in society are explored in the fiction of modern writers such as Toni Morrison, Amy Tan, John Updike, Franz Kafka, and others. (GC)

ENGL-113 Poetry
54.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-101A
Accepted For Credit: CSU & UC
This course examines traditional and contemporary poetry and poets. It includes discussion of sound, symbol, and spirit in poems by major poets like Shakespeare, Sylvia Plath, Wordsworth, Frost, Emily Dickinson, and others. (GR)

ENGL-114 World Mythology
54.00 hrs lecture
Units: 3.00
Advisory: ENGL-101A
Accepted For Credit: CSU & UC
This course is a study of significant myths and legends with emphasis on Greek/Roman, Nordic (Norse), and another Indo-European mythological system. Students also study other mythological systems of various cultures through independent research. Focus is on literature. (GC)

ENGL-115 Women in Literature
54.00 hrs lecture
Units: 3.00
Cross-referenced Course: WS-115
Advisory: Eligible for ENGL-101A
Accepted For Credit: CSU & UC
Students will read, discuss, and write about short stories, novels, poetry, drama, and essays of British and American women writers past and present. (GC)

ENGL-116 Science Fiction and Fantasy
54.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-101A
Accepted For Credit: CSU & UC
A sampling of science fiction and fantasy from traditional space voyages, sword and sorcery to more sophisticated, modern forms are studied in this course. (GC)

ENGL-117 The Gothic Novel
54.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-101A
Accepted For Credit: CSU & UC
This course examines selected gothic novels in English and American Literature in order to analyze and discuss their importance in the development of fiction. Course focus is on the gothic impulse in nineteenth century literature. Classics like Frankenstein, Dracula, Jane Eyre, and Dr. Jekyll and Mr. Hyde will be studied in connection with the preoccupations of the Romantic and Victorian eras. Vintage films will be shown. (GC)

ENGL-118 Introduction to Shakespeare
54.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-101A
Accepted For Credit: CSU & UC
This course introduces the students to the Elizabethan era, to drama as a literary form, and to the plays and poems of William Shakespeare. (GC)

ENGL-119 Survey of American Literature: Beginning to 1865
54.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-101A
Accepted For Credit: CSU & UC
This course focuses on the literary productions of America from its beginning to 1865. Students will read and discuss American oral traditions, short stories, poetry, drama, and novels and will become familiar with great American writers. (GC)

ENGL-120A Survey of American Literature: 1865 to Present
54.00 hrs lecture
Units: 3.00
Advisory: ENGL-101A
Accepted For Credit: CSU & UC
This course focuses on American literature from 1865 to the present: Transcendentalism, Modernism, and Postmodernism. Students will read and discuss classic American short stories, poetry, drama, and novels and will become familiar with great American writers. (GR)

ENGL-120B Survey of American Literature: 1865 to Present
54.00 hrs lecture
Units: 3.00
Advisory: ENGL-101A
Accepted For Credit: CSU & UC
This course focuses on American literature from 1865 to the present: Transcendentalism, Modernism, and Postmodernism. Students will read and discuss classic American short stories, poetry, drama, and novels and will become familiar with great American writers. (GR)
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Hours Lecture</th>
<th>Prerequisites</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL-121</td>
<td>The Mystery: Unlocking Its Secrets</td>
<td>3.00</td>
<td>54.00 hrs</td>
<td></td>
<td>The course explores the mystery genre by introducing students to various works of past and contemporary British and American authors and by introducing students to the various sub-genres such as cozies, amateurs, police procedurals, forensics, and private investigators. (GC)</td>
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<tr>
<td>ENGL-122</td>
<td>Environmental Literature</td>
<td>3.00</td>
<td>54.00 hrs</td>
<td></td>
<td>This course is a survey of environmental writing reflecting the changing relationship between humans and their environment through time. Readings will cover a range of eras and philosophies, including Native American creation tales, narratives from the Age of Conquest, poetry and fiction from the Romantic Era, early environmental essays from the 19th and 20th centuries, and current environmental writing. Students will read a variety of literary and non-fiction texts from Thoreau, Muir, Leopold, Stegner, Carson, Abbey, Pollan, and others. (GC)</td>
</tr>
<tr>
<td>ENGL-125A</td>
<td>English Literature: From the Middle Ages to the Restoration/18th Century</td>
<td>3.00</td>
<td>54.00 hrs</td>
<td></td>
<td>The course encompasses several revolutions in style and sensibility that have shaped English literature from Beowulf through the Middle Ages, the 16th century, the 17th century, and the Restoration/Early 18th century. (GR)</td>
</tr>
<tr>
<td>ENGL-125B</td>
<td>English Literature: From Romanticism to Modernism</td>
<td>3.00</td>
<td>54.00 hrs</td>
<td></td>
<td>This course encompasses several revolutions in style and sensibility that have shaped English literature from the Romantic nature poets like Wordsworth, Keats, and Shelley to Modernist writers like James Joyce, Virginia Woolf, and T.S. Eliot. (GR)</td>
</tr>
<tr>
<td>ENGL-127</td>
<td>Autobiography: Writing Journals and Memoirs</td>
<td>3.00</td>
<td>54.00 hrs</td>
<td></td>
<td>This is an autobiography course for those who wish to write about their personal and family experiences in journals and memoirs. The course encourages students to remember, consider, and write about their own and their family’s past and present, to learn basic research techniques, to organize their material, and to write effectively. Students will also discuss extracts from published autobiographical works. (GC)</td>
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<tr>
<td>ENGL-129</td>
<td>Psychology and Literature</td>
<td>3.00</td>
<td>54.00 hrs</td>
<td></td>
<td>This course focuses on a variety of major psychological issues as they emerge from the close study of character, conflict, and motivation in literature. Common themes will include attachment and identity, childhood, family conflict, sexuality and romantic love, stages of adulthood, and awareness of death. Major psychological theorists such as Freud, Piaget, and Erikson will be presented and their theories applied to the texts being analyzed and discussed. (GC)</td>
</tr>
<tr>
<td>ENGL-130</td>
<td>American Stories: Multicultural Autobiography and Memoir</td>
<td>3.00</td>
<td>54.00 hrs</td>
<td></td>
<td>This course explores the lives of multicultural Americans, such as Native Americans, African Americans, Asian Americans, and Latinos, as told through autobiography or memoir. (GC)</td>
</tr>
<tr>
<td>ENGL-131</td>
<td>Hip Hop/Slam Poetry</td>
<td>3.00</td>
<td>54.00 hrs</td>
<td></td>
<td>This is a creative writing course in which students write and perform hip hop and slam poetry that expresses their thoughts about the world. (GC)</td>
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<tr>
<td>ENGL-141</td>
<td>Advanced Novel and Short Story Writing</td>
<td>3.00</td>
<td>54.00 hrs</td>
<td></td>
<td>This course is to complete the ENGL-111A and ENGL-111B series for creative writing. Participants will be focusing on finishing their novels, memoirs, and/or updating their short stories, so that they may be published. (GC)</td>
</tr>
<tr>
<td>ENGL-151A</td>
<td>Fundamentals of Composition</td>
<td>4.00</td>
<td>54.00 hrs lab</td>
<td></td>
<td>Prerequisite: ESL-184RW or appropriate skill level demonstrated through the placement test process. Advisory: Concurrent enrollment in ENGL-162 or ENGL-175. This course focuses on fundamentals of English grammar, punctuation, and acceptable usage as applied to writing clear sentences, paragraphs, and informal essays. Not applicable to associate degree. (GR)</td>
</tr>
<tr>
<td>ENGL-151B</td>
<td>Fundamentals of Composition</td>
<td>4.00</td>
<td>54.00 hrs lab</td>
<td></td>
<td>Prerequisite: ENGL-151A or appropriate skill level demonstrated through the placement test process. Advisory: Concurrent enrollment in ENGL-163 or ENGL-175. This course reviews fundamentals of English grammar, punctuation, and sentence structure and focuses on reading critically and writing well-developed and well-organized paragraphs and essays (descriptive, expository, and argumentative). Not applicable to associate degree. (GR)</td>
</tr>
</tbody>
</table>
ENGL-156  Introduction to Report and Technical Writing  
54.00 hrs lecture  
Units: 3.00  
Advisory: ENGL-151B, BA-116, or equivalent writing experience  
Accepted For Credit: CSU  
This course focuses on the basics of technical writing and covers how to write effective workplace documents such as memos, procedures, and reports, as well as formal proposals. (GC)

ENGL-162  Developmental Reading  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Advisory: ESL-184RW or Accuplacer assessment. Concurrent enrollment in ENGL-151A encouraged to enhance combined reading and writing skills.  
English 162 is an introduction to college reading and study techniques. Students learn to analyze, annotate, and summarize a variety of college readings, including essays, textbooks chapters, news articles, and stories. Emphasis is on analytical reading: recognizing main ideas, discerning underlying patterns of thought, making inferences, and drawing conclusions. Not applicable to associate degree. Repeatable = 1 time (GR)

ENGL-163  Techniques of College Reading  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Prerequisite: ENGL-162 or score between 71.5 and 87.5 on the reading portion of Accuplacer Assessment  
Advisory: Concurrent enrollment in ENGL-151B encouraged  
ENGL-163 is the most advanced in the series of reading and study skills courses. In this course students will develop college level skills in vocabulary, comprehension, critical reading and thinking, study strategies, reading rate, and written response to reading. Not applicable to associate degree. Repeatable = 1 time (GR)

ENGL-167  Critical and Analytical Reading  
54.00 hrs lecture  
Units: 3.00  
Prerequisite: ENGL-163, or eligible for ENGL 101A  
Accepted For Credit: CSU  
A college-level reading course with emphasis on development of critical analytical thinking. Focus is placed on the student’s ability to understand inferential reading passages, including the ability to understand the author’s point of view and to engage in textual analysis. In addition, the student should develop the ability to successfully critique college-level reading material by analyzing a variety of prose structures. (GC)

ENGL-172  Vocabulary Improvement  
54.00 hrs lab  
Units: 1.00  
This course is designed for students of all levels of achievement who wish to improve their vocabulary through an individualized program. Students will be asked to work 54 hours in the lab at their convenience. Materials are assigned after pretesting. Not applicable to associate degree. Repeatable = 3 times (GC)

ENGL-173  Improvement of Learning Techniques  
54.00 hrs lab  
Units: 1.00  
ENGL-173 is for students who wish to improve learning skills through individualized practice of effective reading, studying, and listening. Students will be asked to work 54 hours or complete three assigned programs in the lab at their convenience. Materials are assigned after pretesting. Not applicable to associate degree. Repeatable = 3 times (GC)

ENGL-174  Spelling Improvement  
54.00 hrs lab  
Units: 1.00  
ENGL-174 is for students who wish to improve spelling skills through individualized practice. Students will be asked to work 54 hours or complete three assigned programs in the lab at their convenience. Materials are assigned after pretesting. Not applicable to associate degree. Repeatable = 3 times (GC)

ENGL-175  Reading and Comprehension Improvement  
54.00 hrs lab  
Units: 1.00  
ENGL-175 is for students who wish to improve reading comprehension through individualized work on specific weaknesses. Students will be asked to work 54 hours or complete three assigned programs in the lab at their convenience. Materials are assigned after pretesting. Not applicable to associate degree. Repeatable = 3 times (GC)

ENGL-176  Rapid Reading  
54.00 hrs lab  
Units: 1.00  
Advisory: Ninth grade reading comprehension level  
This course is for the student who has at least a ninth grade level of comprehension and who wishes to increase reading rate while maintaining or improving the level of comprehension. Students will be asked to complete three programs equivalent to 54 hours at their convenience. Materials are assigned after pretesting. Not applicable to associate degree. Repeatable = 3 times (GC)

ENGL-365  Supervised Tutoring  
90.00 hrs lab  
Units: 0.00  
Prerequisite: Instructor or counselor referral  
This course provides students with individualized tutoring. It assists students to develop a learning methodology in a subject. It includes diagnosis and consultation with tutorial coordinator and supervised tutoring by part-time instructional aides and/or student tutors. Not applicable to associate degree. Repeatable = 3 times (NG)

ENGLISH AS A SECOND LANGUAGE

Division: Language and Communication

ESL-121  English Idioms  
36.00 hrs lecture  
Units: 2.00  
Prerequisite: Placement into ESL-181 or higher  
This course helps students learn idiomatic expressions that are commonly used by native speakers in English conversation. Students will listen to and read dialogues containing English idioms and practice producing them in informal dialogues of their own. Not applicable to associate degree. (GC)

ESL-122  News and Current Events for ESL Students  
36.00 hrs lecture  
Units: 2.00  
Prerequisite: ESL-181RW, or placement into ESL-182RW or higher  
Read and discuss news stories and current events. Simplified and standard newspapers will be used. Some writing will be required. Not applicable to associate degree. (GC)
ESL-123 English Verb Tenses
54.00 hrs lecture
Units: 3.00
Prerequisite: ESL-181RW, or placement into a higher level of ESL or English
This course is designed for non-native speakers of English who want a review of the English verb tense system. It emphasizes accurate use of verb tenses in writing, but it will include oral practice as well. Not applicable to associate degree. (GC)

ESL-125 Using the Internet for ESL Practice
36.00 hrs lecture
Units: 2.00
This course is designed for non-native speakers of English to learn how to make good use of the rich internet resources available for learning and practicing English. Students will learn about a variety of ESL Web sites, and will learn the computer skills necessary to most effectively interact with those resources. Not applicable to associate degree. (GC)

ESL-150 English Pronunciation I
54.00 hrs lecture
Units: 3.00
Practice in basic pronunciation including the International Phonetic Alphabet (IPA), the recognition and production of the corresponding IPA sounds; stress in words, basic rhythm and intonation patterns, and the development of fluency in basic communicative contexts. Not applicable to associate degree. (GC)

ESL-151 English Pronunciation II
54.00 hrs lecture
Units: 3.00
Prerequisite: ESL-150
Practice in intermediate pronunciation skills including a review of the International Phonetic Alphabet (IPA); the recognition and production of the corresponding IPA sounds; stress in sentences, rhythm, and intonation patterns; and the development of fluency in a greater variety of communicative contexts. Not applicable to associate degree. (GC)

ESL-181LS Listening and Speaking, Level I
90.00 hrs lecture
Units: 5.00
Prerequisite: Appropriate score on the ESL Placement Test
This course is designed to develop communication skills in American English. It is open to students whose native language is not English. There is practice in the skills of listening and speaking with an emphasis on fluency, vocabulary development, verb tenses, and basic sentence structure. Not applicable to associate degree. (GC)

ESL-181RW Reading and Writing, Level I
90.00 hrs lecture
Units: 5.00
Prerequisite: ESL-181RW, or placement into a higher level of ESL or English
This course is designed for non-native speakers of English who want a review of the English verb tense system. It emphasizes accurate use of verb tenses in writing, but it will include oral practice as well. Not applicable to associate degree. (GC)

ESL-182RW Reading and Writing, Level II
90.00 hrs lecture
Units: 5.00
Prerequisite: ESL-181RW and/or appropriate score on ESL Placement Test
This course is designed to develop skills in American English. It is open to students whose native language is not English. There is practice in the skills of reading, writing, and grammar with an emphasis on fluency, vocabulary development, verb tenses, and basic sentence structure. Not applicable to associate degree. (GC)

ESL-183LS Listening and Speaking, Level III
72.00 hrs lecture
Units: 4.00
Prerequisite: ESL-182LS and/or appropriate score on ESL Placement Test
This course is designed to develop aural/oral skills in American English for students whose native language is not English. There is practice in the skills of listening and speaking with an emphasis on fluency, comprehension, vocabulary development, verb tenses, beginning notetaking, and intermediate sentence structure. This is one of two combined skills courses in the third level of the ESL sequence. Not applicable to associate degree. (GC)

ESL-183RW Reading and Writing, Level III
72.00 hrs lecture
Units: 4.00
Prerequisite: ESL-182RW or placement through ESL Placement Test
This course is designed to help non-native speakers of English improve their reading and writing skills in English. It emphasizes academic English skills that are necessary for higher levels of college study, and it is part of the third level of the ESL sequence. Not applicable to associate degree. (GC)

ESL-184RW Reading and Writing, Level IV
72.00 hrs lecture
Units: 4.00
Prerequisite: ESL-183RW or appropriate score on the ESL Placement Test
This is the fourth level in the ESL sequence. It will emphasize reading and writing skills for academic purposes, but it will require oral presentations as well. Not applicable to associate degree. (GC)

ESL-191 Grammar and Editing Skills
54.00 hrs lecture
Units: 3.00
Prerequisite: ESL-183RW or placement into ESL-184RW, ENGL-151A, or higher level English course
This course is designed to help non-native speakers of English improve their grammar and editing skills, but is open to native speakers as well. It is open to students who are enrolled in or have completed any of the following courses: ESL-184RW, ENGL-151A, ENGL-151B, or ENGL-101A. Not applicable to associate degree. (CR)

ESL-365 ESL – Supervised Tutoring
90.00 hrs lecture
Units: 0.00
Prerequisite: Instructor or Counselor referral
This course provides students with individualized tutoring. It assists students to develop a learning methodology in a subject. It includes diagnosis and consultation with a tutorial coordinator and supervised tutoring by part-time instructional aides and/or student tutors. Not applicable to associate degree. Repeatable = 3 times (NG)
### ENVIRONMENTAL STUDIES

Division: Health Sciences and Environmental Studies

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<td>ENVS-106</td>
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<td>ENVS-107</td>
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<td>ENVS-108</td>
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<td>ENVS-122</td>
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**ENVS-101 Natural Resource Management**
- **Units:** 3.00
- **54.00 hrs lecture**
- **Accepted For Credit:** CSU & UC
- Analysis of earth's natural resources and the role of human populations in their use, sustainable development, and exploitation. Topics typically include the status and trends of resources such as topsoil degradation, agriculture, water, energy, and wildlife. Emphasis is on problem solving and computational methods applied to resource management problems. (GC)

**ENVS-102 Environmental Law and Regulations**
- **Units:** 3.00
- **54.00 hrs lecture**
- **Accepted For Credit:** CSU & UC
- This course explores fundamental legal and policy issues in environmental law. Legislative, judicial, and administrative controls over public and private actions impacting on the environment are discussed. The course examines the statutory, administrative, and judicial decisions relating to the environment and the government actors, agencies, and citizens making these decisions. (GC)

**ENVS-103 The Environment and Human Health**
- **Units:** 3.00
- **54.00 hrs lecture**
- **Accepted For Credit:** CSU & UC
- A by-product of human population growth is the modification of habitat and the surrounding environment. This course examines the close link between human health and environmental health, particularly focusing on how pollution of the air, water, and land, as well as contamination of food and ecosystems, impacts the human body. (GR)

**ENVS-104 Solar Photovoltaic Design and Installation**
- **Units:** 3.00
- **36.00 hrs lecture, 54.00 hrs lab**
- **Accepted For Credit:** CSU
- Introduction of solar photovoltaic system requirements, design and configurations, installation techniques, and their application in residential and commercial construction. Entry-level Certification Exam from NABCEP is an option. (GR)

**ENVS-105 Energy: Development and Sustainability**
- **Units:** 3.00
- **54.00 hrs lecture**
- **Accepted For Credit:** CSU & UC
- This course is an exploration of the conversion and use of energy, on the nature of energy and energy systems, how different cultures use and view energy, and the use of energy in contemporary societies. This course will explain the origin and dimensions of the global energy problem and identify how energy issues and policies affect environmental quality, economic growth, and global politics. The course will focus on how energy conservation, energy efficiency, and renewable energy sources can be incorporated to create a sustainable society. (GR)

**ENVS-106 Wind Energy: Design and Development**
- **Units:** 3.00
- **54.00 hrs lecture**
- **Accepted For Credit:** CSU
- This course explores the role of wind as an energy source, as well as its social, economic, and political implications on the global energy supply. Surveys in historical wind energy application will be conducted, its reliability assessed, and environmental implications analyzed. Also studied will be wind energy applications and basic operating principles. The status of the industry’s future and renewable energy as a whole will be analyzed. (GR)

**ENVS-107 Introduction to Sustainable Agriculture**
- **Units:** 3.00
- **54.00 hrs lecture**
- **Accepted For Credit:** CSU
- This course examines how changes in the way we eat and farm impact the environment and how traditional and evolving methods of farming can reduce our environmental impact and feed our populations sustainably. (GC)

**ENVS-108 Human Ecology**
- **Units:** 3.00
- **54.00 hrs lecture**
- **Cross-referenced Course:** BIOL-108
- **Advisory:** Eligible for ENGL-151B and ENGL-163
- **Accepted For Credit:** CSU & UC
- Human Ecology is an interdisciplinary, general education course that identifies problems created by man’s modification of his environment, presents solutions to these problems, and offers appropriate alternatives. (GC)

**ENVS-109 Urbanization: Towards Green Communities**
- **Units:** 3.00
- **54.00 hrs lecture**
- **Accepted For Credit:** CSU
- This course presents the sociological, economical, and sustainable perspective in the investigation and understanding of urban phenomena. Included are a wide range of topics that tap the spectrum of urban growth and development in both the developed and developing world. (GC)

**ENVS-111 Advanced PV Design and Installation**
- **Units:** 3.00
- **54.00 hrs lecture**
- **Prerequisite:** ENVS-104
- **Accepted For Credit:** CSU
- The field of solar power is ever expanding with new technology, equipment, and installation techniques. This course will further enhance and add to the knowledge gained by students who have taken ENVS-104, Introduction to Solar PV Design and Installation. (GR)

**ENVS-122 Environmental GIS**
- **Units:** 2.00
- **18.00 hrs lecture, 54.00 hrs lab**
- **Cross-referenced Course:** GEOG-122
- **Prerequisite:** GEOG-121
- **Accepted For Credit:** CSU
- This course will apply skills and techniques that were introduced in Geography 121, Introduction to GIS. The course will allow the student to gain a further understanding of GIS concepts, technical issues, and applications using ArcView GIS to study various environmental themes. (GC)
ENVS-142  Environmental Biology
54.00 hrs lecture, 54.00 hrs lab
Units: 4.00
Cross-referenced Course: BIOL-142
Advisory: Eligible for ENGL-151B and ENGL-163
Accepted For Credit: CSU & UC
This lecture and lab course is an introduction to the biological sciences focusing on diversity; organismal interactions with their environment and with other organisms (ecology), the effects humans have had on biological diversity and ecosystems, and efforts to protect species and their habitats (conservation). (GC)

FRENCH

Division: Language and Communication

FREN-101A  Elementary French
90.00 hrs lecture, 18.00 hrs lab
Units: 5.00
Advisory: Eligible for ENGL-101A
Accepted For Credit: CSU & UC
This course is an introduction to the reading, writing, speaking, and understanding of French. (GR)

FREN-101B  Elementary French
90.00 hrs lecture, 18.00 hrs lab
Units: 5.00
Prerequisite: FREN-101A or two years of high school French
Accepted For Credit: CSU & UC
This course is a continuation of FREN-101A. It covers the fundamentals of French grammar in addition to reading, writing, and speaking the language. (GR)

FREN-102A  Intermediate French
90.00 hrs lecture, 18.00 hrs lab
Units: 5.00
Prerequisite: FREN-101B or three years of high school French
Accepted For Credit: CSU & UC
This course is a review of grammar, oral, and written composition and a study of French culture. (GR)

FREN-102B  Intermediate French
90.00 hrs lecture, 18.00 hrs lab
Units: 5.00
Prerequisite: FREN-102A
Accepted For Credit: CSU & UC
This course is a continuation of FREN-102A that covers advanced grammar, oral and written composition, and the study of the French civilization. (GR)

GENDER AND WOMEN'S STUDIES

Division: Arts and Social Sciences

WS-101  Introduction to Gender and Women's Studies
54.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-101A
Accepted For Credit: CSU & UC
This course will focus on the questions and concepts in gender and women's studies, the development of U.S. feminism and feminist theory, and the globalization of feminism and feminist concerns. Central to this course will be the ways in which place, race, ethnicity, sexuality, gender orientation, class, and age shape women's experiences and the various socio-political meanings of gender. We will also examine the ways in which women have resisted inequality and effected social and political change. This course will be interdisciplinary in its approach, meaning that we will read feminist essays from a wide range of disciplines, including cultural studies, economics, history, philosophy, political theory, psychology, and sociology. In addition, we will conduct several small sociological experiments and observations, and we will watch excerpts of videos and films. (GC) C-ID SOCI 140

WS-108  Gender Communication
54.00 hrs lecture
Units: 3.00
Cross-referenced Course: SPCH-108
Advisory: Eligible for ENGL-101A
Accepted For Credit: CSU & UC
Examine the influence of gender and culture on communication in personal relationships, organizations, mass media and society. (GR)

WS-115  Women in Literature
54.00 hrs lecture
Units: 3.00
Cross-referenced Course: ENGL-115
Advisory: Eligibility for ENGL-101A
Accepted For Credit: CSU & UC
Students will read, discuss, and write about short stories, novels, poetry, drama, and essays of British and American women writers past and present. (GC)

WS-120  Women of the Western World
54.00 hrs lecture
Units: 3.00
Cross-referenced Course: IS-120
Advisory: ENGL-101A
Accepted For Credit: CSU & UC
This course is an interdisciplinary course involving an overview of women's traditional roles in the western world; the history of the feminist movement, past and present; and an attempt to define the changing role of women in a diverse contemporary American society. Cross-cultural information about women's roles in other societies will be regularly introduced. (GC)

WS-132  Introduction to US Muslim Women and Islam
54.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-101A
Accepted For Credit: CSU & UC
This course is an in depth study of American Muslim women: their roots, beliefs, and practices; social, spiritual, and economic status; discriminatory treatment in education and employment; political involvement and socialization; and a comparative study of Muslim women to pre-Islamic, ancient, and Western women. (GR)
GEOG-101 Physical Geography  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Accepted For Credit: CSU & UC  
This course will focus on the interaction between humans and their physical environment emphasizing the natural features of weather and climate, land forms, soil, vegetation, earthquakes, and volcanism, water quality and environmental management, and pollution. (GC)

GEOG-121 Introduction to Geographic Information Systems (GIS)  
18.00 hrs lecture, 54.00 hrs lab  
Units: 2.00  
Accepted For Credit: CSU  
The objective of this introductory course is to gain basic knowledge of GIS concepts, techniques, and applications. The emphasis of this course is to provide hands-on instruction on the functionality of GIS as an effective tool for modeling and analyzing complex spatial relationships. (GR)

GEOG-122 Environmental GIS  
18.00 hrs lecture, 54.00 hrs lab  
Units: 2.00  
Cross-referenced Course: ENVS-122  
Prerequisite: GEOG-121  
Accepted For Credit: CSU  
This course will apply skills and techniques that were introduced in Geography 121, Introduction to GIS. The course will allow the student to gain a further understanding of GIS concepts, technical issues, and applications using ArcView GIS to study various environmental themes. (GC)

GEOG-123 GIS Projects  
54.00 hrs lab  
Units: 1.00  
Prerequisite: GEOG-121  
Accepted For Credit: CSU  
This course enables students to manage GIS projects using knowledge acquired in GEOG-121 and GEOG-122. Repeatable = 1 time (GC)

GEOG-120 Introduction to Global Positioning Systems (GPS)  
9.00 hrs lecture, 27.00 hrs lab  
Units: 1.00  
Advisory: GEOG-101  
This course focuses primarily on the science and application of Global Positioning System (GPS) technology. Students receive hands-on experience with space-based radio navigation systems. The course will examine current and future GPS applications, explore basic navigation, illustrate map coordinate systems, and then integrate this knowledge with the GPS satellite navigation system. (GR)

GEOG-102 Cultural Geography  
54.00 hrs lecture  
Units: 3.00  
Advisory: Eligible for ENGL-151B and ENGL-163  
Accepted For Credit: CSU & UC  
This course will focus on the study of the origin, spread, and regional differences of human cultures as they relate to the use of the earth and how they relate to their physical environments. The course explores how different people use and/or abuse or otherwise change the earth as the home of humanity. (GC)

GEOG-104 The World’s Nations  
54.00 hrs lecture  
Units: 3.00  
Advisory: Eligible for ENGL-151B and ENGL-163  
Accepted For Credit: CSU & UC  
This course deals with the regional variations of the world and its effects of human modification of the physical environment. The factors contributing to landscape change such as settlement patterns, transportation networks, types of agriculture, and the various types of land tenure systems; current world problems and environmental issues are also discussed. (GC)

GEOG-105 California Geography  
54.00 hrs lecture  
Units: 3.00  
Accepted For Credit: CSU & UC  
This course investigates California’s physical, cultural, and economic environments; analyzing changes resulting from both natural and human interaction. The emphasis is on cultural diversity, human alteration of the landscape, and contemporary problems resulting from accelerated competition for natural, financial, and human resources. (GC)
**GEOL-102L** Oceanography Laboratory  
54.00 hrs lab  
Units: 1.00  
Corequisite: GEOL-102  
Advisory: Eligible for ENGL-151B and ENGL-163  
Accepted For Credit: CSU & UC  
GEOL-102L is designed to supplement GEOL-102. The lab will consist of hands-on exercises and two Saturday field trips that illuminate various aspects of ocean science. This will include working with maps, living and fossil specimens of marine life, Web-based study of global plate tectonics, field observations of marine rocks, fossils, and living organisms in tide pools, and the study of San Francisco Bay onboard a ship. (GC)

**GEOL-103** Paleontology and Dinosaurs  
54.00 hrs lecture  
Units: 3.00  
Advisory: Eligible for ENGL-151B and ENGL-163; GEOL-103L  
Accepted For Credit: CSU & UC  
This course is a journey through time that examines the history of life from its beginnings to the end of the last Ice Age, the changing Earth, evolution, mass extinctions, and fossils of dinosaurs and their relatives. Up to two Saturday field trips will be required. (GC)

**GEOL-103L** Earth History and Paleontology Laboratory  
54.00 hrs lab  
Units: 1.00  
Corequisite: GEOL-103 or GEOL-104  
Advisory: Eligible for MATH-151  
Accepted For Credit: CSU & UC  
Hands-on studies of Earth history as revealed by rocks and fossils representing different stages in evolution of the Earth and life through geologic time. Labs include map exercises, relative and numerical age determinations, reconstructions of geological history of North America, and studies of fossil specimens of animals and plants from all over the world. A Saturday field trip may be required. This course is an optional supplement to GEOL-103 or GEOL-104. (GR)

**GEOL-104** The Changing Earth: Historical Geology  
54.00 hrs lecture  
Units: 3.00  
Accepted For Credit: CSU & UC  
The study of the origin and evolution of Earth and life through time. Geological history and global change as revealed by plate tectonics, rocks, fossils, and evidence for climatic change, both ancient and recent. The development of continents, especially North America, ocean basins, and mountains. One Saturday field trip required. (GR)

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**GRAPHIC ARTS**

Division: Arts and Social Sciences

**GA-109A** Beginning Graphic Design I  
(Letter Forms and Typography)  
36.00 hrs lecture, 72.00 hrs lab  
Units: 3.00  
Cross-referenced Course: ART-109A  
Advisory: ART-104A  
Accepted For Credit: CSU  
This course is an introduction to graphic design. It will cover the fundamentals of letter form design with traditional and contemporary alphabets. Studio practice will emphasize the relationships between image and message. Repeatable = 3 times (GC)

**GA-109B** Beginning Graphic Design II  
36.00 hrs lecture, 72.00 hrs lab  
Units: 3.00  
Cross-referenced Course: ART-109B  
Prerequisite: GA-109A or ART-109A  
Accepted For Credit: CSU  
This course is an introduction to the pictorial image and written word as basic components in a format for communications. The studio practice develops the student's ability to formulate and communicate a concept into graphic form for both presentation and production. Repeatable = 3 times (GC)

**GA-110A** Advanced Graphic Design I  
36.00 hrs lecture, 72.00 hrs lab  
Units: 3.00  
Cross-referenced Course: ART-110A  
Prerequisite: GA-109B or ART-109B  
Accepted For Credit: CSU  
This is an advanced class. The emphasis is on students' problem-solving ability. It includes comprehensive projects in applied graphics and three-dimensional design. There is instruction in techniques for package design, product visualization, execution of 3-D design prototypes for presentation and photography. Repeatable = 3 times (GC)

**GA-110B** Advanced Graphic Design II  
36.00 hrs lecture, 72.00 hrs lab  
Units: 3.00  
Cross-referenced Course: ART-110B  
Prerequisite: GA-110A or ART-110A  
Accepted For Credit: CSU  
This course gives advanced attention to design solution and presentation. The course deals with the development of a single all-inclusive graphic design project. The emphasis is on effective client relationship from concept development through assignment completion. Repeatable = 3 times (GC)

**GA-138A** Beginning Photoshop  
27.00 hrs lecture, 81.00 hrs lab  
Units: 3.00  
Cross-referenced Course: ART-138A  
Accepted For Credit: CSU & UC  
This course is for photographers with limited experience or new to Adobe Photoshop. Students learn how to work with a digital “darkroom” using images supplied by the instructor for this purpose. Topics included are image file management and organization, file formats, resolution, basic image editing, selective image editing, scanning, preparing images for web-based application, how to purchase a digital camera, and more. A digital camera is not required. Repeatable = 3 times (GC)

**GA-138B** Intermediate Photoshop  
27.00 hrs lecture, 81.00 hrs lab  
Units: 3.00  
Cross-referenced Course: ART-138B  
Prerequisite: GA-138A or ART-138A  
Accepted For Credit: CSU  
This course is for photographers wishing to increase their working knowledge of Adobe Photoshop. Students work with a digital “darkroom” using original images as well as images supplied by the instructor. Topics included are working with layers and masks, opacity and blend modes, transforming, working with text, camera raw, actions and smart filters, print and web-based workflow. A digital camera is not required. Repeatable = 3 times (GC)
GA-160A  **Computer Graphics I**  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Cross-referenced Course: ART-160A, BA-160A, CS-160A  
Accepted For Credit: CSU & UC  
This course is an introduction to microcomputers and to the creation of computer-generated graphics. This course examines the variety of software/hardware tools and techniques available for the production of computer-made imagery. The emphasis is on hard-copy production using printers, plotters, and other reproduction methods. This course also covers design principles, business graphics, and elementary programming principles. Repeatable = 3 times (GC)

GA-160B  **Computer Graphics II**  
54.00 hrs lecture, 54.00 hrs lab  
Units: 4.00  
Cross-referenced Course: ART-160B, BA-160B, CS-160B  
Prerequisite: GA-160A, ART-160A, BA-160A, CS-160A  
Accepted For Credit: CSU  
This course is a continuation of GA-160A. The emphasis in this course is on developing intermediate and advanced skills needed to operate a computer graphics work station. The students complete projects of their choice using more complex Paint and CAD software, printers, and plotters. Repeatable = 3 times (GC)

GA-161A  **Digital Graphics I**  
18.00 hrs lecture, 54.00 hrs lab  
Units: 2.00  
Cross-referenced Course: ART-161A, CAOT-161A  
Accepted For Credit: CSU  
This course is an overview of computer graphics on desktop computers for graphic designers, artists, typographers, and for business applications. This course will cover hardware and software including: laser printers, ink jet printers, scanners, tablets, and bit-mapped and vector-based graphics programs. This course also covers design principles and business graphics. The course emphasis is on the creation of a portfolio of computer graphics drawings. Repeatable = 3 times (GC)

GA-161B  **Digital Graphics II**  
18.00 hrs lecture, 54.00 hrs lab  
Units: 2.00  
Cross-referenced Course: ART-161B, CAOT-161B  
Prerequisite: GA-161A, ART-161A, or CAOT-161A  
Accepted For Credit: CSU  
This course is a continuation of GA-161A. The emphasis in this course is on developing intermediate and advanced skills needed to set up and operate a digital graphics work station and publish on the Web. Students complete projects of their choice using complex graphics software, scanners, tablets, and printers. The course emphasis is on the continued development of a portfolio of computer images. Repeatable = 3 times (GC)

GA-163  **Digital Arts Lab – Macintosh**  
2,700 hrs lab  
Units: 0.50  
Cross-referenced Course: ART-163, ID-163  
This course is a lab component for all courses taught on the Macintosh and on drafting equipment in these areas: Art, Graphic Arts/Computer Graphics, Photography, and Interior Design. Students will produce digital graphic and drafting projects for art related classes. Repeatable = 3 times (CR)

GA-169A  **Beginning Digital Photography**  
18.00 hrs lecture, 108.00 hrs lab  
Units: 3.00  
Cross-referenced Course: ART-139A  
Accepted For Credit: CSU & UC  
This course explores the photographer’s creative process from several directions. Students will undertake photographic projects designed to provide engagement with a variety of subject matter and ways of photographing, look at photographic work in online and local galleries and museums, consider current issues having to do with photographic technologies, discuss their photographs with other students in an effort to improve their creative processes. Technical instruction will include camera functions, resizing and saving digital files, and minor image modification. For intense technical instruction, see ART-138A and ART-138B. Repeatable = 3 times (GC)

GA-169B  **Intermediate Digital Photography**  
18.00 hrs lecture, 108.00 hrs lab  
Units: 3.00  
Cross-referenced Course: ART-139B  
Prerequisite: GA-169A or ART-139A  
Accepted For Credit: CSU  
This is an intermediate course on the Macintosh Computer utilizing two software applications, namely Adobe Photoshop and Apple QuickTime VR Authoring Studio. Students will learn to develop QuickTime VR objects, panoramas, and scenes for use with desktop publishing, print publishing, or Web site development. Students will need a camera for capturing images to be used in projects. Repeatable = 3 times (GC)

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**HEALTH**

Division: Exercise Science and Athletics

**HLTH-101**  **Contemporary Health Issues**  
54.00 hrs lecture  
Units: 3.00  
Advisory: Eligible for ENGL-101A  
Accepted For Credit: CSU & UC  
This course promotes personal, family, and community well-being and includes ways to obtain and maintain optimum wellness. (GC)

**HLTH-120**  **Mind-Body Balance**  
36.00 hrs lecture  
Units: 2.00  
This experiential course invites participants to integrate mind-body techniques into their life to promote relaxation, balance, and mindfulness. Mind-body techniques include meditation, breath work, biofeedback, imagery, reflective drawing, journaling, nutrition, time management, assertiveness, and exercise. This course focuses on the art of self-care. Registered Nurses and Licensed Vocational Nurses will receive thirty continuing education hours upon successful course completion. (GC)
HLTH-125  Stress Management  
36.00 hrs lecture  
Units: 2.00  
Advisory: Ability to read and write English at a college level is highly recommended  
Accepted For Credit: CSU  
This course is a theoretical and experiential approach for incorporating stress management into your daily life. Understand the stressors in your life, the physical and psychological implications of that stress, prevention strategies and stress reduction techniques. (GC)

HLTH-150  Women's Health Issues  
54.00 hrs lecture  
Units: 3.00  
Cross-referenced Course: WS-150  
Advisory: Eligible for ENGL-101A  
Accepted For Credit: CSU & UC  
This course is a study of the contemporary issues affecting women's health at home and at work from biological, psychological, and sociological perspectives. Explore such topics as mental health, sexuality, parenting, nutrition, exercise, rape and battery, aging, occupational health, and cultural diversity, and the effects on women in American culture. (GC)

HLTH-160  Human Sexuality  
54.00 hrs lecture  
Units: 3.00  
Accepted For Credit: CSU & UC  
This course examines the physiological and psychological aspects of sexual health in our contemporary society. Understanding the interrelationship of attitude and behavior as it relates to sexual integrity. Emphasis will be on knowledge, attitudes and behavior that will contribute to a healthy individual. (GC)

HISTORY  
Division: Arts and Social Sciences

HIST-102A  Chicana/o History I  
54.00 hrs lecture  
Units: 3.00  
Cross-referenced Course: CHS-102A  
Advisory: ENGL-101A  
Accepted For Credit: CSU  
Covers the history of Chicanas and Chicanos from Pre-Colombian times to 1850. Emphasizes the political, economic, and social influences of Pre-Columbian America, Spain, Mexico, and the United States. Includes a study of the United States Constitution. (GR)

HIST-102B  Chicana/o History II  
54.00 hrs lecture  
Units: 3.00  
Cross-referenced Course: CHS-102B  
Advisory: ENGL-101A  
Accepted For Credit: CSU  
Covers the history of the Mexican-American experience from 1850 to the present day. Emphasizes the political, economic, and social experiences of the Mexican American people under the influences of Mexico and the United States. Includes a study of the Constitution of California. (GR)

HIST-104A  Western Civilization with a World Perspective Until 1600  
54.00 hrs lecture  
Units: 3.00  
Advisory: Eligible for ENGL-101A  
Accepted For Credit: CSU & UC  
This course is a survey of the cultural, social, and political developments of civilization in the Mediterranean through the beginning of early modern history. This course takes an interdisciplinary approach to the study of Western Civilization before 1600 and includes a world perspective. (GC)

HIST-104B  Western Civilization with a World Perspective From 1600  
54.00 hrs lecture  
Units: 3.00  
Advisory: Eligible for ENGL-101A  
Accepted For Credit: CSU & UC  
This course is a survey of the cultural, social and political developments in Western Civilization with a world perspective from the rise of the nation-state through contemporary times with a speculative look at the future. (GC)

HIST-105  History of California  
54.00 hrs lecture  
Units: 3.00  
Advisory: ENGL-101A  
Accepted For Credit: CSU & UC  
This course covers the heritage and development of California from its beginnings to the present day with emphasis on the economic, social, ethnic, multicultural, and political forces which shaped the modern state. The Golden State’s phenomenal growth and multicultural changes are emphasized. (GC)

HIST-107  History of Film  
54.00 hrs lecture  
Units: 3.00  
Cross-referenced Course: TD-107  
Advisory: Eligible for ENGL-151B and ENGL-163  
Accepted For Credit: CSU & UC  
This class examines the impact of film on our lives and history. Students will review films, discuss, and analyze techniques used. (GR)
HIST-114A  African American History 1619-1877
54.00 hrs lecture
Units: 3.00
Advisory: ENGL-151B and/or ENGL-163
Accepted For Credit: CSU & UC
This course covers the history of African Americans from the early 17th century to 1877. Political, social, cultural, and economic experiences will be discussed. (GC)

HIST-114B  African American History 1877 to Present
54.00 hrs lecture
Units: 3.00
Advisory: ENGL-151B and/or ENGL-163
Accepted For Credit: CSU & UC
A history of African Americans from 1877 to present will be covered. Political, social, cultural, and economic experiences will be discussed. (GR)

HIST-115  Asian-American History
54.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-101A
Accepted For Credit: CSU & UC
This course is a review of Asian Pacific Americans in the social, political, economic and cultural development of the United States from Reconstruction to the present. Groups surveyed will include Korean, Filipino, Asian Indian, Pacific Islanders, South East Asian, Japanese, and Chinese. (GC)

HIST-117A  History of the United States
54.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-101A
Accepted For Credit: CSU & UC
This course surveys the history of the United States from pre-colonial times through Reconstruction (1877). (GR)

HIST-117B  History of the United States
54.00 hrs lecture
Units: 3.00
Advisory: ENGL-101A
Accepted For Credit: CSU & UC
This course surveys the history of the United States from 1877 (the end of Reconstruction) to the present. (GC)

HIST-118  Contemporary U.S. History: 1945 -
54.00 hrs lecture
Units: 3.00
Advisory: Eligible for ENGL-101A
Accepted For Credit: CSU & UC
This course surveys the post-World War II role of the United States in world affairs and explores the socio-political development of the nation from 1945 to the present. It will emphasize the growing cultural pluralism of twentieth century America. (GR)

HIST-119A  Bad Girls: Women in America Before 1890
54.00 hrs lecture
Units: 3.00
Advisory: ENGL-101A
Accepted For Credit: CSU & UC
Women before 1890 faced numerous hardships in their struggles for equality. This course traces women of different racial and ethnic backgrounds as they challenge social, economic, political, and gender norms in North America. The course explores how women have negotiated issues such as race, class, gender, work/labor, and sexuality. (GC)

HIST-119B  Bad Girls: Women in America From 1890
54.00 hrs lecture
Units: 3.00
Advisory: ENGL-101A
Accepted For Credit: CSU & UC
Women in the United States after 1890 faced numerous hardships in their struggles for equality. This course traces women of different racial and ethnic backgrounds as they challenge social, economic, political, and gender norms in North America. The course explores how women have negotiated issues such as race, class, gender, work/labor, and sexuality. (GR)

HIST-141  A History of Early Rock and Roll:
Music and Culture of the 1950’s
54.00 hrs lecture
Units: 3.00
Cross-referenced Course: IS-142, MUS-122
Advisory: ENGL-101A
Accepted For Credit: CSU & UC
This course presents a historical overview of the emergence of rock and roll music as a cultural phenomenon in the U.S. The major figures of the 1950’s—Bill Haley, Fats Domino, Elvis Presley, Chuck Berry, and Little Richard—will be studied alongside the major historical events and trends that shaped this decade. The course is designed to gradually develop a student’s appreciation for this art form while simultaneously exposing the symbiotic interrelationship between rock and roll and the American Culture. The course will chart how rock & roll simultaneously reflects and affects society by grounding the key people, events, and songs within their historical context. (GC)

HIST-142  History of Rock and Roll:
Music and Culture of the 1960’s
54.00 hrs lecture
Units: 3.00
Cross-referenced Course: IS-143, MUS-123
Advisory: ENGL-101A
Accepted For Credit: CSU & UC
This course charts the evolution of Rock and Roll music from the late 1950’s through the 1960’s, focusing on the history of the period as well as a detailed analysis of the stylistic development of this important musical genre. The course is designed to gradually develop students’ appreciation for this art form while simultaneously exposing the symbiotic interrelationship between rock and American society. (GC)

HIST-143  History of Rock and Roll:
Music and Culture Since 1970
54.00 hrs lecture
Units: 3.00
Cross-referenced Course: MUS-125
Advisory: Eligible for ENGL-151B and ENGL-163
Accepted For Credit: CSU & UC
This course examines the development of popular music and its relationship to general culture and society since 1970. It will include identification and analysis of art rock, disco, new wave, reggae, rap, hip-hop, worldbeat, and other musical genres through online reading, lectures, and in-class demonstrations. (GR)